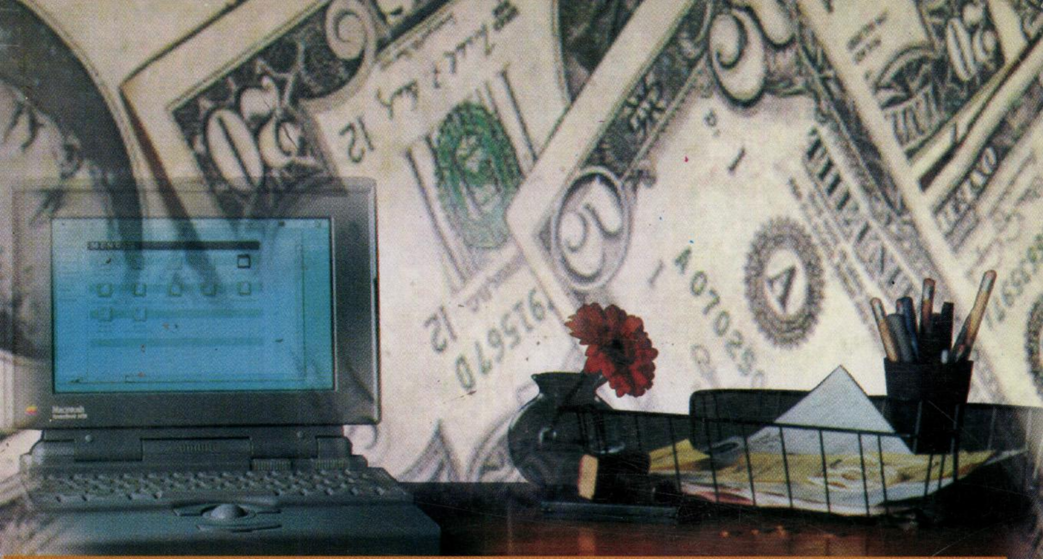


BUSINESS MANAGEMENT-II
MARKETING & FINANCE

REDDY • APPANNAIAH • SATHYAPRASAD

Himalaya Publishing House

BUSINESS MANAGEMENT - II

(Marketing and Finance)

Dr. P.N. Reddy, *Ph.D.*
Former Dean and Chairman,
Department of P.G. Studies in
Commerce and Management,
Bangalore University,
Bangalore.

Prof. H.R. Appannaiah, *M.Com.*
Director,
P.G. Centre, Surana College,
Former Principal KPHRIMS,
Former Principal, P.A. College, Tiptur.
Foundation President: Federation of Teachers,
Councils of Commerce and Management,
in Karnataka.

Dr. B.G. Sathyaprasad, *M.Com., Ph.D.*
Professor of Commerce,
Abbas Khan College for Women,
Bangalore - 560 002.

Himalaya Publishing House
MUMBAI ● DELHI ● NAGPUR ● BANGALORE ● HYDERABAD

ISBN : 978-93-5024-506-4

Revised Edition : 2010

Published by : Mrs. Meena Pandey
for **HIMALAYA PUBLISHING HOUSE,**
"Ramdoot", Dr. Bhalerao Marg, Girgaon,
Mumbai - 400 004.
Phones: 23860170 & 23863863,
Fax: 022-23877178
Email: himpub@vsnl.com
Website: www.himpub.com

Branch Offices :

Delhi : "Pooja Apartments", 4-B, Murari Lal Street,
Ansari Road, Darya Ganj,
New Delhi - 110 002.
Phone: 23270392, Fax: 011-23256286

Nagpur : Kundanlal Chandak Industrial Estate,
Ghat Road, Nagpur - 440 018.
Phone: 2721216, Telefax: 0712-2721215

Bangalore : No. 16/1 (Old 12/1),
1st Floor, Next to Hotel Highlands, Madhava Nagar,
Race Course Road, Bangalore - 560 001.
Phones: 2281541, 2385461. Fax: 080-2286611

Hyderabad : No. 2-2-1 167/2H, 1st Floor,
Near Railway Bridge, Tilak Nagar,
Main Road, Hyderabad - 500 044.
Phone: 55501745, Fax: 040-27560041

Printed by : Geetanjali Press Pvt. Ltd.,
Kundanlal Chandak Industrial Estate,
Ghat Road, Nagpur - 440 018.

CONTENTS

PART-A: MARKETING

1. Marketing Concepts 1 - 39
2. Marketing Functions 40 - 50
3. Marketing Environment 51 - 78
4. Product Planning 79 - 104
5. Price Strategies 105 - 131
6. Promotion 132 - 153
7. Advertising 154 - 179
8. Salesmanship 180 - 210
9. Distribution 211 - 257

PART-B: FINANCE

1. Financial Management 261 - 286
2. Financial Plan 287 - 301
3. Financing Decision 302 - 350
4. Investment Decision 351 - 409
5. Dividend Decision 410 - 429
6. Working Capital Management 430 - 483
7. Ratio Analysis 484 - 553

PART-A
MARKETING

1

MARKETING CONCEPTS

Conceptual Backdrop — Marketing Organisation — Market — Marketing — Marketing Management — Marketing System — Process — Modern Concept — Marketing In New Millennium

CONCEPTUAL BACKDROP

If you examine your daily life style, commencing from getting up from bed in the morning to the time you go to the bed in the evening you observe that you have used a good number of products and services rendered by others. You get up from your bed at six in the morning, may be with the help of an alarm piece to wake you. Then you wash your mouth and brush your teeth with a Colgate tooth brush and paste. After that you wash your face and wipe it with a towel, manufactured by a reputed textile mill. Next, you drink a cup of tea prepared from a well known brand, mixed with sugar and milk. You use a gas stove to prepare tea. Many types of utensils are used to prepare tea. Thus, your activities go on for the whole day, using several types of goods manufactured by different firms. When you think about it, you cannot get very far into a day without bumping into MARKETING – and what the whole marketing system does for you. It enters everybody's life even without one's consideration.

The concept of marketing is a wide term. The early stages of the growth of this discipline marketing was considered as selling and no distinction was made between the two terms 'Marketing' and 'Selling'. Thinkers and even some business managers would say that marketing was advertising. It is true that selling and advertising are parts of marketing. Marketing is much more than selling and advertising. Today the term 'marketing' has been clearly defined. Many organisations are involved in developing marketing activities to satisfy the needs of various groups of customers. This division of consumers has helped the development of new products and services and even specialisation in selling is being attained. Very many new concepts like Network marketing, Relationship marketing, Direct marketing are developed and are implemented to reach as many consumers as possible, through them. Satisfying the consumer is the main *mantra* in today's marketing activity. With the development of new markets and new avenues of selling, a wide variety of consumer and producer goods have been designed and developed and for many *marketing* has become a good profession. Particularly in developing countries like India, marketing is occupying a vital place in business activity. Market driven economies are gaining power at the global level. Even the socialist countries have started studying the marketing concepts in a scientific way, to introduce them actively in their internal distribution system.

What is included in marketing can be better explained by analysing a product or service. For example a tooth paste. Tooth paste is used by people all over the world. Most of us were not born with a tooth brush with tooth paste on it in our mouth. We do not manufacture our own tooth paste. Instead companies like the Colgate-Palmolive, Hindustan Lever etc. manufacture them. All tooth pastes look alike and perform the same job cleaning the teeth. But a consumer can choose from a wide variety of tooth pastes. They have different colours, sizes, tastes, weights and attractive packings. Price also varies. You can purchase in any range you want.

This variation in size, price etc. complicates the production and sales of tooth paste. The following aspects show as to what has to be done before and after a firm decides to produce a tooth paste.

(a) Analyse the requirements of users of tooth paste and decide whether they want more of the same ones or different tooth paste.

(b) Visualize the type of tooth paste–size, colour, price and taste–the different consumers want and decide how many of these people, the firm can satisfy.

(c) Estimate how many of these people will use that particular tooth paste in the next few years and what quantity they will buy.

(d) Estimate the price at which they purchase their paste and find out whether the firm can make profit out of it.

(e) Find out where these users will be and how to get the firm's paste to them.

(f) Think of the type of promotion to be adopted to sell the product to the potential customers.

(g) Estimate the competitor's position in the market where you sell. The estimate should be in terms of the quantity they produce, price they fix for each size, packaging they make, promotion strategy they adopt etc.

All these activities are not part of production. But they are part of a big process called MARKETING. Marketing provides a required direction and helps make sure that the right products are produced and find their way to consumers. The tooth paste example will illustrate that marketing includes much more than selling and advertising. It plays an essential role in providing consumers with need satisfying goods and services.

Marketing activities started from the days of 'Barter Economy' or even earlier. But it still looks new and attracts many people to involve themselves in this activity in one form or the other. But the marketing activity was recognised properly after the Industrial Revolution. Commercial Revolution provides an impetus to marketing activities. Although, the subject matter of economics discussed wide variety of marketing activities, marketing ideas were not brought to the lime light by this discipline. Only in twentieth century, marketing activities had a new look and started developing as a separate discipline. In the last hundred years, it went through many phases and today it has emerged as a key discipline in the business world, assuming newer heights. The goods and services which were once considered luxury, have become essential commodities today because of the development of marketing. Thousands of innovative consumer products have entered the offices and households all over the world due to the marketing effort.

MARKETING ORGANISATION

The role of organisations in developing the marketing activity cannot be ignored. Several institutions are involved in discharging marketing functions. They may be either small or big, good or bad, but they are on their toes to satisfy human wants. Twentieth century has been the age of organisations. Man is so attached to these organisations that he cannot live without them. Organisations — profit or non-profit — government or private — are in different forms and sizes. Business organisations are in the form of sole trading concerns, partnership and joint stock companies. Joint sector undertakings have also gained momentum these days. All these forms of organisations, at national and international levels are engaged in selling their products through a network of branches. Thus, the organisations are formed to satisfy the wants of consumers. The organiser is the key person in the organisation process. He collects capital and invests it in the area of his choice, to produce a product. The organiser not only invests, but also co-ordinates the other factors of production. He produces the required goods or services and sells it. Many organisations fail to co-ordinate the factors and may have to disappear from the marketing scene. A successful organiser knows the techniques of co-ordination and also the art of selling his product in the target market. If he cannot assess the potency of his rivals in the market, he fails to catch up with the market.

The consumer is the king in the market. Consumer tries to satisfy his wants from different market sources. His taste, fashion and preferences also change from time to time. Hence, the marketeer should learn the art of reading the mind of the consumer and act accordingly.

The marketing organisations may develop fast in the initial stages and have a gradual decline after some time or they may have steady growth or develop slowly in the initial stages and grow fast, in later stages. There are reasons for this. The two major reasons that can be attributed are: *(i)* The fast changing mind of the consumer, *(ii)* The keen competition from rivals. The well established producers and marketers have a sudden death in the market as they forget these two factors. This means that they are not aware of the marketing culture. As the rivals work hard, the established ones will have to gradually fade out, if they are not alert in the market.

Whatever may be the level of production, or behaviour of consumer and the threat of rivals in the market, the role of organisations cannot be forgotten. In this book we attempt to analyse the role of different types of marketing organisations and the management of marketing activities to attain their ultimate goal of 'Profit maximisation.'

Several concepts have been used in marketing management study and in this chapter, the concept of 'market', 'marketing' and its different forms have been explained.

MARKET

The first concept to be understood in marketing management is MARKET. The term 'Market' is derived from the Latin word 'maratus'. This means merchandise, wares, traffic, trade or place of business. This term has been defined by many in many ways. But its central theme is that it is an activity which centres round two important operations *viz.* BUYING and SELLING. Simply, it means an 'Exchange Activity'.

Definitions

"A market is an aggregate demand of the potential buyers for a product/service." — *American Marketing Association*

"A market is an area for potential exchanges." — *Philip Kotler*

"Any person or group with whom an individual or organisation has an existing or potential exchange relationship can be considered as market." — *W.J. Stanton and Others*

"Market is a group of sellers and buyers who are willing to exchange goods and/or services for something of value. Of course, some negotiation may be needed. This can be made face-to-face at some physical location. Or it can be done indirectly — through a complex network of middlemen who link buyers and sellers who are far apart." — *E.J. McCarthy / W.D. Perreult*

"Originally, a market was a public place in a town where provisions and other objects were exposed for sale, but the word has been generalised to mean any body of persons who are having intimate business relations and carry on extensive transactions in any commodity." — *Prof. Jevons*

"Market includes both place and region in which buyers and sellers are in free competition with one another." — *Pyle*

"The term market refers not to place, but to a commodity or commodities and buyers and sellers who are in direct competition with one another." — *Chapman*

"A market is a centre about which or an area in which the forces leading to exchange of title to a particular product operate and towards which the actual goods tend to travel." — *Clark and Clark*

"Market, for most commodities, may be thought of not as a geographical meeting place, but as getting together of buyers and sellers in person, by mail, telephone, telegraph, or any other means of communication." — *Mitchell*

These and many more definitions put forward by leading writers on marketing give vital dimensions of market. But the main function is 'Exchange'.

This chart explains the concept of market in detail. From this we understand that market is not just a place where buyers and sellers meet. It is something more. It is a group of buyers and sellers interested in negotiating the terms of purchase and sale of goods and services. The negotiation may take place in person or through any other type of communication, like telephone, correspondence, or teleshopping or electronic-mail. Two vital forces of market *viz.* demand and supply facilitate the exchange process of consumers and sellers. 'Exchange' is the main activity in a market. Exchange is possible when something (goods) is there to offer and somebody is there to accept. Purchase consideration (price of the product or service) also plays an important role in matching the buyer and seller. Therefore, price is the meeting point of buyers and sellers in the market. Actually price is determined by the free play of demand for supply of goods. Thus, 'market' is an exchange activity which takes place between buyers and sellers directly or through middlemen, in a place or otherwise, for a price, resulting in physical/legal delivery of ownership of goods. Various definitions given also focus on these following aspects of market.

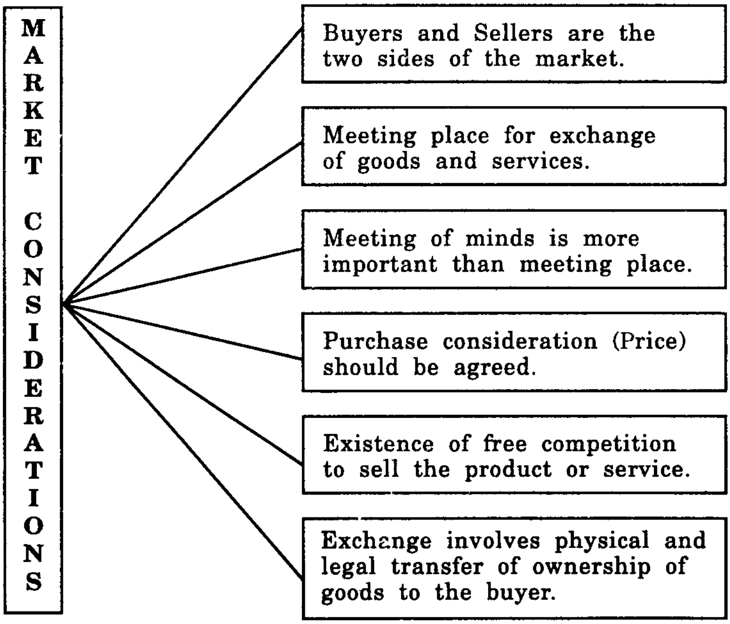


Fig. 1.1 Market Considerations

- Aggregate demand of potential buyers.
- Area for potential exchanges.
- Buyers and sellers exchange goods or service for a price.
- Exchange may take place in a specific location or through other channels — middlemen, telephone, paper correspondence, electronic mail, teleshopping etc.
- Having intimate business relations and carry on extensive transactions in any commodity.

- Element of competition exists.
- Market information, legal controls, regulation for fair trading, market feed-back regarding repeat purchase, are other facilitating factors of market.

These aspects throw light on various dimensions or concepts of market *viz.* *(i)* Place concept, *(ii)* Area concept, *(iii)* Demand concept.

Concepts of Market

1. Place Concept: A market is a convenient meeting place for buyers and sellers to gather together in order to conduct buying and selling activities, *e.g.*, a spot cash or physical market, wholesale or retail market.

2. Area Concept: A market develops in any area, small or large, the moment there are three prerequisites for exchange: (1) Two or more individuals have unsatisfied wants, (2) They have product(s) to exchange, and (3) They have some means of communication such as phone, telex, correspondence, etc. With the means of communication, price-making forces of demand and supply can freely operate and informed buyers and sellers can establish close and continuous contacts to carry on the exchange of products without formal face-to-face meeting. In such a market, price uniformity can be easily established place wise through transport and time through warehousing. In this sense, we have a national or world market for many commodities. This is an economic concept of the term 'market'. The meeting place for exchange is not essential and it is a matter of convenience only. For instance, a money market is a highly organised market for the entire nation without any central meeting place for borrowers and lenders of money.

3. Demand Concept: The term market is also used to represent total customer demand. In this sense, market means people with needs to satisfy, the money to spend and the will to spend money to satisfy their wants, convert their needs to action. The human being is a wanting animal having never-ending, varied and ever-changing wants. The process of want satisfaction is continuous and under keen competition, sellers want to create, capture and retain the market (customer demand) for their goods. From a seller's point of view, a market offers an opportunity to seek success through the development and implementation of a marketing programme which will meet customer needs and desires. A seller may be priced out of the market when his product has no demand. Every product has a life cycle. What was popular yesterday may not be popular tomorrow. Buyer behaviour and competition are changing variables in the market environment.

In short, the concepts of the term 'market' reveal the following main features: (1) Meeting place for exchange is a matter of convenience. (2) Buyers (demand) and sellers (supply) are the two sides of the market. (3) The meeting of minds is more important than face-to-face meeting in order to create a market, wherein we have one single price for an article of exchange the price determined by the free play of demand and supply. (4) It is presumed that there is free competition in the market among the sellers and among the buyers. (5) Usually money acts as the medium of exchange and the act of exchange involves transfer of ownership and possession from a seller to a buyer in the market.

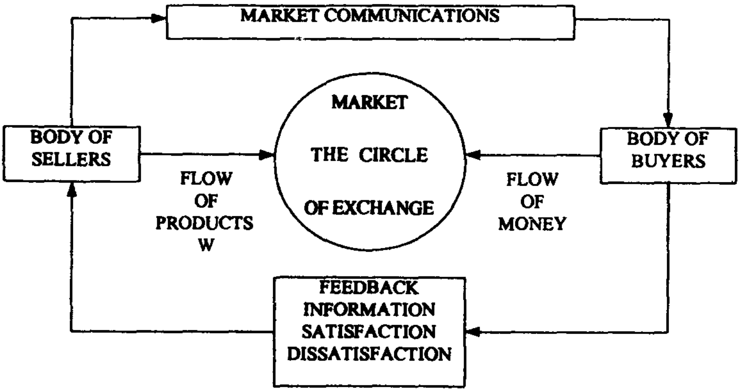


Fig. 1.2 The Market (Exchange Process)

Note:

1. The circle of exchange represents the market to conduct the process of exchange wherein products are exchanged against money/other products (*i.e.*, barter exchange).
2. In the market, ownership and possession of products would be transferred from the seller to the buyer as per sale contract.
3. Factors affecting the exchange process in the market are (1) demand and supply, (2) price, (3) market information with the buyers and sellers, (4) legal control and regulations to ensure fair trading.
4. Feedback information indicates buyer's post-purchase experience. If satisfied, seller gets repeat orders. If dissatisfied, buyer will buy other brands.

MARKET CLASSIFICATION

The term market has various dimensions. These dimensions have been recognised based on the nature of exchange activity that takes place between buyers and sellers and the commodities and services offered for exchange. The following figure shows the classification of market.

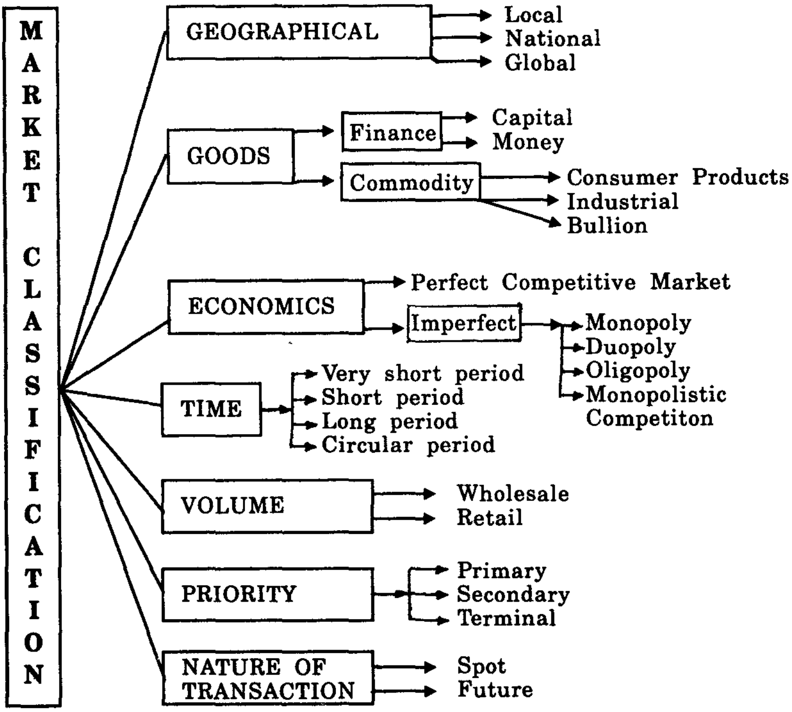


Fig. 1.3 Market Classification

It can be seen from this figure that many types of market exist in day-to-day operations. A brief analysis of these markets are given in the following paragraphs.

1. Geographical Classification

Markets classified on the basis of geographical structure are *(i)* Local *(ii)* National and *(iii)* World markets.

(i) Local Market: People in a given local area meet each other to buy or sell their products. In this market, demand and supply will be on a small scale. Perishable articles are the main products offered for sale. Even other locally produced commodities are bought and sold on a small scale. Village or town markets are the examples of local market.

(ii) National Market: Goods pooled in local markets are transported nation-wide and acquire the status of national market. There are very many goods offered in national market. Rapid improvement of transport and communication systems, has made the goods and services to be sold in every nook and corner of the country. Today all types of goods are moving from one part of the country to another through protected system of transport and have created a national market for products.

(iii) Global Market: This is a market seen at the global level. It is also called international market. People from different countries meet over the phone or through authorised agencies and settle their transactions. The market activity takes place within the framework of rules and regulations of each country and also of international agreements relating to trade and tariff.

2. Goods Market

This market is classified on the basis of goods marketed. In this we observe two basic categories of market. They are (i) Finance market and *(ii)* Commodity market.

(i) Finance Market: Finance market has to classifications based on volume and time. *(a)* Capital market, *(b)* Money market. This is a financial service market. Product operated is service.

(a) *Capital market* is one which deals in long-term funds required for the development of industry and commerce. *e.g.* Share market (Stock Exchanges). Both government and private financial institutions operate in this market.

(b) *Money market* is an activity in which short-term funds are bought and sold. Institutions like commercial banks, discount houses operate in this market. Bill market is a money market. This market satisfies the needs of working capital management of business enterprises.

(ii) Commodity Market: This market comprises of *(a)* Consumer goods market, *(b)* Industrial goods market and *(c)* Bullion market.

(a) Farm products and other consumer goods are bought and sold in this market. In case of farm products we find specialisation in dealing and only one type of produce is bought or sold. *e.g.* Rice market, wheat market, silk market, copra market, oil market, potato market. Similarly we notice sub-market for each farm product. Horticultural products like apple, grapes etc. are also sold like this.

(b) Industrial goods market are the ones in which industrial raw material, semi-finished goods and other machine tools and equipment are bought and sold.

(c) Bullion market is a metallic market which deals in precious metals like gold, silver etc. As the currency of the country is attached to one of the metals – gold, this market has an economic significance.

3. Economics Based Markets

Markets are classified in economics according to features. Accordingly, two basic types are recognised. *(i)* Perfect market and *(ii)* Imperfect market.

(i) Perfect competitive market has features like :

(a) Existence of large number of buyers and sellers.

(b) Perfect knowledge of the product by consumers.

(c) Existence of uniform product.

(d) Free mobility of goods and factor services.

(e) Uniform price for the product.

(f) Healthy competition.

These features are found only in ideal market. Therefore, it is considered as a control model. This market rarely exists in real life.

(ii) Imperfect market, on the other hand, can be seen in real life situation. It consists of other sub-markets like *(a)* Monopoly *(b)* Duopoly *(c)* Oligopoly and *(d)* Imperfect markets.

(a) Monopoly is a single seller market. Monopolist controls stock, supply and price and makes super profits. Consumers are under the mercy of monopolist. They have no choice but to accept whatever price is offered by monopolist and whatever quality of product he offers. It is one way market.

(b) Duopoly is a market where two sellers and large number of consumers exist. Although there will be little competition amongst these two sellers, normally they make huge profits. Price will be normally high.

(c) Oligopoly is a market situation in which few sellers and large number of buyers operate. There will be product differentiation. They will be close substitutes and offer different ranges with different features. But still they look similar. Consumers have choice in picking the products they need to satisfy their desires. Price will be normal and producers enjoy little monopoly power by maintaining a market share.

(*d*) Monopolistic competition is a market having the features of monopoly and competition. There will be few producers and 'Product differentiation' is the main feature. Another feature noticed is that producers will be spending heavily on promotion of the products. Heavy selling cost will be the key feature of monopolistic competition. Prices will not be uniform. Market will be a bit consumer friendly.

4. Time Based Markets

Time plays a vital role in every business. Time is money for businessmen. Realising the importance of time for business operations, it has been divided into four stages depicting certain features in each stage. Accordingly, we observe :

(*i*) Market period or very short period.
(*ii*) Short period market.
(*iii*) Long period market.
(*iv*) Circular period.

(i) In a very short period market, there will be no time for the producers to produce the product. They can only sell whatever there is in stock. Therefore supply will not match the demand. Price is fixed according to demand.

(ii) Short period market is one where the producer has very little time to adjust the supply. He can even produce additional quantity by varying variable factors like raw material, labour etc. But large quantities cannot be produced. Producing capacity is not changed in this period. Fixed factors remain the same.

(iii) Long period market is described as a market which has sufficient time to change even fixed factors. Plant capacity can be increased. Or there are diversification of the product. Every cost is variable cost for the manufacturer as fixed costs are subjected to replacement and renewal.

(iv) Circular period is the longest period which has little relevance in the study of markets.

5. Volume Based Markets

There are two types of markets in this category. (*i*) Wholesale market and (*ii*) Retail market.

(i) Wholesale market is one in which only bulk quantity is bought and sold. There is small spread in price. In other words the price difference between buying and selling is very less. Products don't reach the consumers directly in this market. Wholesaler is only a middleman between retailers and manufacturers.

(ii) On the other hand retail market is one which will has direct contact with consumers. Retailer is the last link in the distribution channel. Consumers only look for retailers for all their grievances about the product.

6. Priority Based Markets

In this category we notice three types *(i)* Primary market *(ii)* Secondary market and *(iii)* Terminal.

(i) Primary market is the place where producers sell their products to wholesalers. This mainly happens in farm products and manufacturing goods. Direct marketing is on a low scale or nil. *e.g.* Sale of shares in the capital market by companies.

(ii) Secondary market is one in which the deal takes place between sellers and sellers or wholesalers and retailers. *e.g.* Purchase of equity shares in open market from allottees for speculation or with the intention of investment.

(iii) Terminal market is a market in which consumers have access to the product.

7. Nature of Transaction

Market is also classified as per the nature of transaction carried on in the market. Accordingly two markets are observed. *(i)* Spot market and *(ii)* Future market.

(i) Spot market is one in which the physical delivery of goods or scrips takes place. This is a sort of an investment market.

(ii) Future market is a speculative market. Here transactions are carried on only to make fortune out of anticipated fluctuations in price of the product or scrip. The price for the product is fixed today to make deliveries at a future date hoping that price may be advantageous to purchase or sell on that future date. Thus future market is only a speculative market.

Some Definitions

"Marketing includes all activities involved in the creation of place, time and possession utilities. Place utility is created when goods and services are available at the places they are needed; time utility when they are needed; and possession utility, when they are transferred to those who need them."

— *Converse, Hugey and Mitchell*

"Marketing is the process of discovering and translating consumer needs and wants into product and service specifications, creating demand for these products and services and then in turn expanding this demand." — *Hansen*

"Marketing is the business process by which products are matched with market and through which transfers of ownership are effected." — *Cundiff*

"Marketing includes those business activities which are involved in the flow of goods and services from production to consumption." — *Converse*

"Marketing is the economic process by which goods and services are exchanged and their values determined in terms of money prices." — *Duddy and Reizan*

"Marketing is concerned with the people and activities involved in the flow of goods and services from producer to consumer." —*American Marketing Association*

"Marketing is the creative management function which promotes trade and employment by assessing consumer needs and initiating research and development to meet them. It co-ordinates the resources of production and distribution of goods and services and determines and directs the nature and scale of the total efforts required to sell maximum production to the ultimate user." — *UK Institute of Marketing*

"Marketing is the creation and delivery of standard of living; it is finding out what customer wants, then planning and development of a product or service that will satisfy those wants; and then determining the best way to price, promote and distribute that product or service. It is a total system of business activities designed to produce and distribute want satisfying goods and services to potential customers." — *W.J. Stanton*

"The purpose of business is to create a customer by which he lays stress on two aspects *(a)* Identification of consumer needs and *(b)* Organising the business to meet these needs." —*Peter F. Drucker*

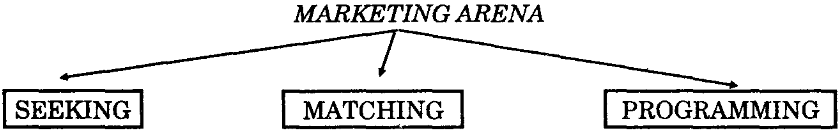
"Marketing is the set of human activities directed at facilitating and consummating exchanges." — *Philip Kotler*

All these definitions throw light on one or the other aspect of marketing. No single definition is complete and new dimensions are added to the concept by recent writers on the subject. However, we can identify from the above definitions as to what marketing is:

- It is a creation of utility in terms of time, place and possession.
- It is a process of converting customer needs into product and service and demand creation.
- Matching consumers and products.
- It is a consumer to consumer activity.

- A creative management function involving production of goods and services, pricing them, promoting them and distributing them to the consumers to satisfy their wants.

Thus marketing encompasses all activities of exchange conducted by producers and middlemen in commerce for the purpose of satisfying consumer demand. New dimension added to the marketing concept is 'Systems Approach'. It is an integrated approach bringing all marketing activities under an integrated whole. Under Systems approach marketing is defined as an on going social process for the creation and delivery of standards and styles of life.



Kinds of Goods

Consumer goods classification based upon consumer's buying habits has three categories.

1. Convenience Goods: These goods are demanded by customers frequently in small quantities, but they must be immediately available at easily accessible retail shops. These are low-cost, highly advertised items that are designed for mass markets and are sold to all income classes. All sales promotion devices are liberally used to stimulate consumer demand. They are branded, low-priced goods sold on a self-service basis. They have to be distributed through numerous retailers. Examples of convenience goods are newspapers, food articles, soaps, razor blades, tobacco products, etc.

Convenience Goods	*Shopping Goods*	*Speciality Goods*
1. Frequent purchases.	1. Demand search efforts in central markets.	1. Goods have unique features.
2. High replacement rate.	2. Purchases can be postponed.	2. Unusual shopping behaviour is needed.
3. Purchases in small quantities.	3. Demand evaluation and comparison on the basis of quality, style, price, suitability.	3. Special purchasing effort is required.
4. Demand, minimum effort and shopping time for purchases.	4. Do not need numerous shops.	4. They act as important life styles and images.

5. Must be available at nearest store. 6. Low in unit value.		5. They are costly luxury goods. 6. Available in speciality shops.
Examples :	**Examples :**	**Examples :**
Bread, milk, snacks, soap, newspaper, tobacco products, self-service stores ideal for such goods.	Clothing, furniture hardware, major appliances—costly shopping goods have declining sale in inflationary or deflationary period.	T.V. sets, watches, cars, tape-recorders, fancy goods.

2. Shopping Goods: There are two types of shopping goods (1) fashion goods, (2) service goods. They need *search efforts* and special visits to central markets; these are not urgent purchases and buyers can postpone buying according to their convenience. They need not have numerous retail outlets. Buyers want to shop around and select goods after comparing quality, terms, style, price, services, and so on. Examples of these goods are furniture, jewellery, domestic appliances, draperies, etc.

3. Speciality Goods: They are goods with unique features. They demand shopping efforts. They are sold in speciality shops. Buyers have brand preference and insistence and will make special effort to buy. These goods are, *e.g.* radio, T.V. sets, watches, fancy groceries, cars, tape recorders, etc. Many well known and very popular brands also become speciality goods.

Marketing

Marketing is a comprehensive term and it includes all resources and a set of activities necessary to direct and facilitate the flow of goods and services from producer to consumer in the process of distribution. Businessmen refer marketing process as distribution process. Human efforts, finance and management constitute the primary resources in marketing. We have twin activities which are most significant in marketing: (1) Matching the product or service, an article of trade, with demand, *i.e.,* customer needs and desires or target market, (2) The transfer of ownership and possession at every stage in the flow of goods from the primary producer to the ultimate consumer. Marketing comprises all activities involved in the determination and satisfaction of customer needs at a profit. By means of marketing function, marketer can direct the firm's response to an ever-changing market environment and orient all parts of the business towards the creation of a satisfied customer.

*1. **Seeking:*** It is the first function. The purpose of seeking is to discover the customer and customer needs. The marketing opportunity is revealed through an analysis of the environment.

*2. **Matching:*** Marketing is a matching process. Customer demand has to be matched with organisational resources and environmental limitations, such as competition, government regulations, general economic conditions and so on.

*3. **Programming:*** The marketing programme, called the marketing mix, covering product, price, promotion and distribution strategies (4 Ps) will be formulated and implemented to accomplish the twin objectives of customer satisfaction and profitability.

Thus, marketing comprises an integrated system of business activities in order to plan, price, promote and distribute goods and services to meet consumer needs within the limits of society. We can evolve a planned system of action dealing with the problem of moving large volume of products, by looking forward to ultimate customers and backward to suppliers, and by linking customers and suppliers together in a sequence of proper steps.

Note: 1. The definition under systems approach stresses managerial aspects of marketing in an integrated manner.

2. It honours customer or market or demand-oriented approach and stresses the marketing concept duly.
3. It indicates that marketing is an on going or dynamic process involving several interacting and interrelated activities.
4. It points out that the entire marketing programme must give market offering which can assure full customer service and satisfaction (within the limits of society) and then only the business firm can expect profitable sales over the long run.
5. Systems approach recognises the interrelations, and interconnections among the components of a marketing system. Integration and coordination of marketing activities provides a new perspective for solving marketing problems.
6. Marketing programmes are planned to achieve the marketing objectives by solving two marketing problems. Problem of stimulating demand is solved by promotion and by pricing to attract customers. Problem of physical distribution is solved by serving the demand through transport, ware housing and inventory control.

Marketing Management

Marketing management represents marketing concept in action, *i.e.*, preplanned demand management — under customer oriented marketing philosophy. The American Management Association defines marketing management as follows:

"Marketing management is the process of planning and executing the conception, pricing, promotion and distribution of goods, services and ideas to create exchanges with target groups that satisfy customer and organisational objectives."

According to Philip Kotler, "marketing management is the analysis, planning, implementation and control of programme designed to create, build and maintain beneficial exchanges and relationships with target market for the purpose of achieving organisational objectives."

From the above definitions, marketing management may be defined as the process of management of marketing programmes for accomplishing organisational goals and objectives. The process of management is the set of managerial functions known as planning, implementation and control of programmes to achieve predetermined objectives. Marketing management involves planning, implementation and control of marketing programmes or campaigns. Marketing management is directly in charge of: (1) the setting of marketing goals and objectives, (2) developing the marketing plan, (3) organising the marketing function, (4) putting the marketing plan into action, and (5) controlling the marketing programme. We have the management cycle of planning-action-control-replanning.

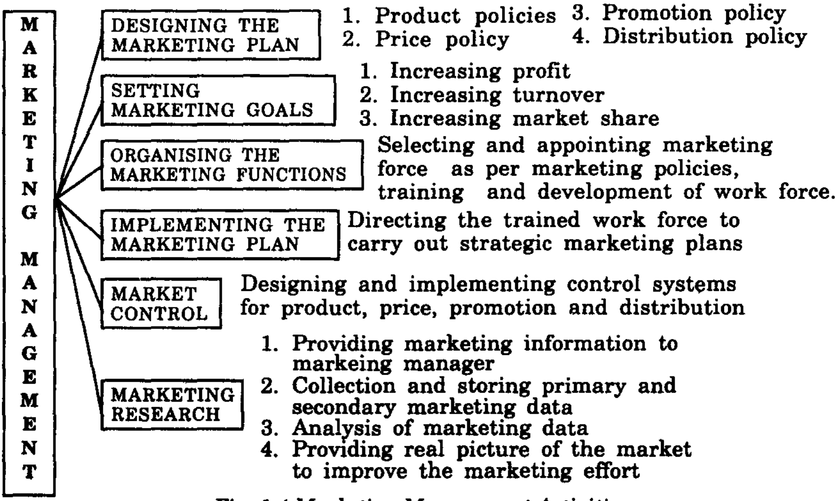


Fig. 1.4 Marketing Management Activities

Marketing management would be influenced by: (1) the forces operating in the marketing system, and (2) the philosophy and objectives of the organisation. At present the philosophy and objective of the organisation are reflected in the broadened marketing concept, *i.e.*, societal marketing concept, wherein.we have socially responsible marketing. As an agency of demand management, marketing management is in charge of regulating the level, timing and character of market demand in such a manner that the enterprise will be enabled to achieve its objectives, *viz.*, productivity, customer and social satisfaction.

APPROACHES TO THE STUDY OF MARKETING

Five basic approaches are commonly used to describe the marketing systems: (1) Commodity approach, (2) Functional approach, (3) Institutional approach, (4) Managerial or Decision-making approach, and (5) Systems-approach.

(1) Commodity Approach

Under the commodity approach, we study the flow of a certain commodity and its journey from the original producer right upto the final customer. In such a study, we can locate the centre of production, people engaged in buying and selling of the product, mode of transportation, problems of selling and advertising the product, problems of financing it, problem arising out of its storage and so on. Through such an approach, we can find out the differences in marketing producers, services and problems. Thus, we can have a fuller picture of the field of marketing. Marketing of agricultural products such as cotton, wheat, jute represent the commodity approach.

(2) Functional Approach

Under the functional approach, we concentrate our attention on the specialised services or functions or activities performed by marketers. The study of marketing functions (like, buying, selling, storage, risk bearing, transport financing and providing information) represents the functional approach to the marketing system.

(3) Institutional Approach

Under the institutional approach, our main interest centres round the marketing institutions or agencies such as wholesalers, retailers, transport undertakings, banks, insurance companies etc., who participate in discharging their marketing responsibilities during the movement of distribution of goods. We try to find out how these various business institutions and agencies work together to form a total marketing system.

(4) Managerial or Decision Making Approach

This approach which is of recent origin combines certain features of the commodity, institutional and functional approaches. In this approach, the focus of marketing study is on the decision making process. The study encompasses discussion of the different underlying concepts, decision influencing factors, alternative strategies and techniques and methods of problem solving.

(5) The Systems Approach

A system is a set of interacting or interdependent groups co-ordinated to form a unified whole and organised to accomplish a set of objectives. In the model of systems approach we have: (1) Objective, (2) Inputs, (3) Processor, (4) Outputs, and (5) Feedback. The objectives direct the process. Control monitors the process. Information feedback gives information from internal and external sources and it is the basis for future change in the system. An open system has its own environment giving the inputs and accepting the outputs. Inputs are processed, producing outputs to meet the objective, the twin objectives of marketing system are customer satisfaction and profitability.

The systems approach provides the best model for marketing activity. It places emphasis on the inputs to the system and the outputs produced. It helps in the determination of marketing and corporate goals, and the development of marketing programmes and the total marketing mix.

Adoption of a systems approach provides a good basis for the logical and orderly analysis of marketing activities. It stresses marketing linkages inside and outside the firm. It emphasizes changing environment. It provides a framework for control. It depends on using the right information. Markets can be understood only through study of information.

Besides these five approaches which are said time and again, we can add some other approaches like: *(i)* Legal approach, *(ii)* Societal approach, and *(iii)* Economic approach.

Legal approach focuses its attention on the legal transfer of ownership of goods to the buyer. It highlights the various legislations that are in force to support marketing system. Acts like Sale of Goods Act, Carrier Act, Construct Act etc., at national level and Act like Regulated Market Act at state level provide legal aspects of marketing.

Societal approach states that society identifies its own consumption needs and satisfy it accordingly. Modern aspect of marketing — consumer to consumer — is the theme of societal approach. Consumers in the society project their desires, producers produce the products accordingly and sell them to consumers. This is a recent thinking on marketing concept. Societal concept projects the idea that "society meets its own consumption needs."

Economic approach considers market forces like demand, supply, price etc. The market behaviour, the types of markets etc. are considered in this approach.

MARKETING SYSTEM

Marketing is by definition a system, if we accept Webster's definition of system, as an assemblege of objects united by some form of regular interaction or interdependence. Certainly, the interaction of such 'objects' as product, price, promotion, sales calls, distribution and so on (Marketing Mix) fit the definition.

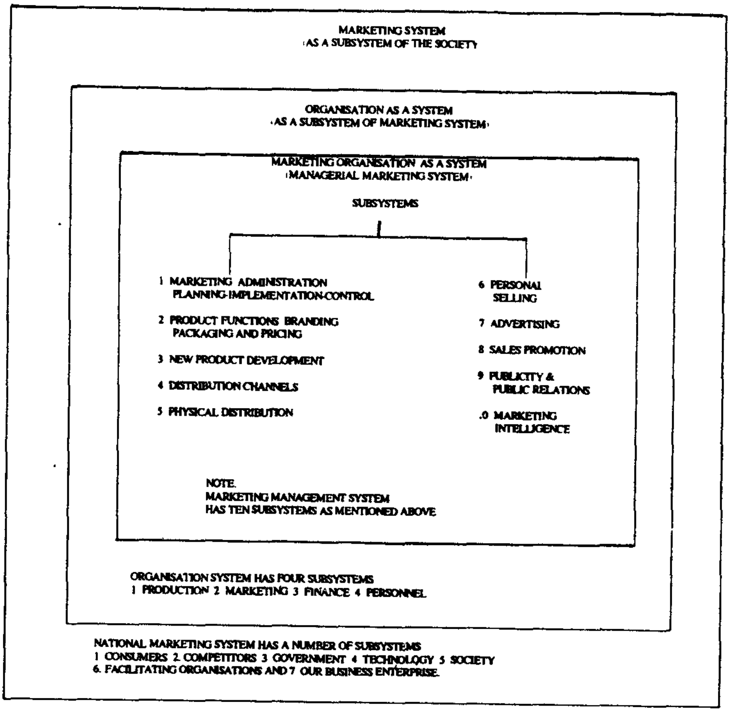


Fig. 1.5 Marketing Subsystems and the Total Marketing System

Note: Marketing environment can be broken down into a number of layers. The inner layers become the sub-systems of the outer layer. Output from one layer becomes the input for the next.

The output establishes the purpose or objective of a system. The objective is profits through serving the demand of consumers and community. The output of marketing system is sales of goods. Correct inputs must be available to the processor, i.e., marketing administration in order to produce desirable outputs. These inputs in the marketing system are the elements of marketing mix and the target market determined through marketing research. The marketing system must operate as per plans and policies and within control which may be internal or external. Of course feedback must be available for introducing corrections in our future plans and marketing operations. Feedback ensures the accomplishment of objectives through continuous marketing managerial process of planning-action-control.

Marketing Process

Marketing has been viewed as an ongoing or dynamic process involving a set of interacting activities dealing with a market offering by producers to consumers on the basis of reliable marketing anticipation (sales or demand forecasts). Marketing is a matching process by which a producer provides a marketing mix (product, price, promotion and physical distribution) that meets consumer demand of a target market within the limits of society. The process is based on corporate goals and corporate capabilities. Marketing process brings together producers and consumers, the two main participants in exchange. Each producer or seller has certain goals and capabilities in making and marketing his products. He uses marketing research as a tool to anticipate market demand. Then he provides a marketing mix (product, services, promotion, advertising, pricing, distribution, etc.) in order to capitalise marketing opportunity. An exchange or a transaction takes place when market offering is acceptable to the customer who is prepared to give something of value (money) in return against the product so bought.

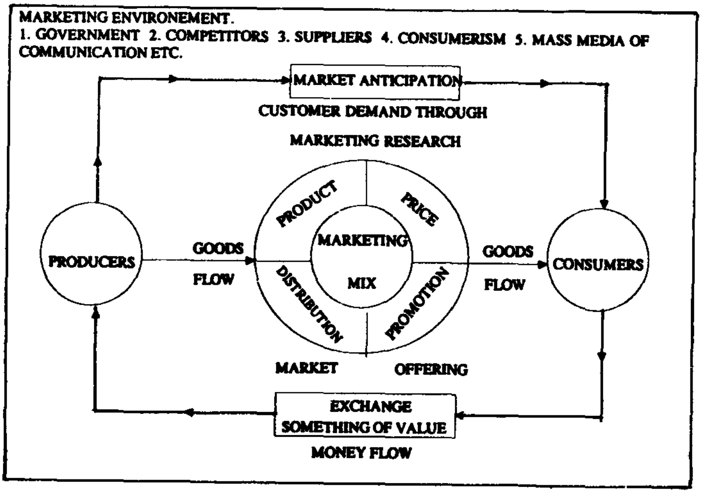


Fig. 1.6 Modern Marketing Process

In the process of exchange both give up something and both gain something in return. The producer gets the surplus value in the form of profit which is a reward for delivering customer satisfaction. The consumer gets the surplus value in the form of utility or individual satisfaction. Market mechanism brings together a willing seller and a willing and informed buyer for mutual gain. The marketing process is influenced by competition, government rules and policies, mass-media of communication, consumer advocates, etc. Marketing environment affects both, producer and consumer. The business enterprise engaged in the marketing process itself is influenced by social environment. It consists of political, economic, social, cultural and technological forces. Marketers have to adapt with these ever-changing environmental forces and fulfil the needs and desires of the society or 'community'. Thus, marketing is an economic as well as social activity. In the long run, society must approve the marketing process. It must monitor marketing process and control its effectiveness. Please note that the modern business enterprise is called upon to demonstrate *simultaneously* higher level of economic performance and fulfilment of social responsibility, *i.e.*, high level of consumer/citizen welfare and satisfaction. Marketing process must reflect social awareness and social responsiveness, and we must have judicial combination of productivity and social responsibility in all business enterprises. Then only we shall have assured survival, growth and prosperity of our units. In essence, marketing is the business function charged with responsibility for directing the firm's response to an ever-changing market environment and orienting all parts of the business towards the sole purpose of the business *viz.*, the creation of satisfied customers at a profit.

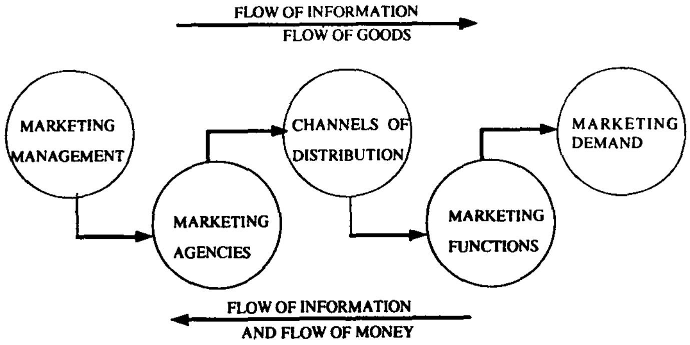


Fig. 1.7 Marketing Management. Servicing Demand through Distribution Structure

THE MODERN CONCEPT OF MARKETING

Philosophy of an organisation in relation to marketing is referred to as marketing concept. Since industrial revolution marketing management has undergone four stages in the marketing concept. (1) Product-oriented marketing, (2) Sales-oriented marketing, (3) Customer-oriented marketing, and (4) Socially-oriented marketing *i.e.*, socially responsible marketing approach. The first two are traditional concepts.

Customer-Orientation (Modern Concept)

This is called modern marketing concept and it was introduced in marketing philosophy and objectives only after 1950. Customer - oriented marketing approach points out that the primary task of a business enterprise is to study needs, desires and values of the potential customers, and on the basis of latest and accurate knowledge of market demand, the enterprise must produce and offer the products which will give the desired satisfaction and services to the customers (much better than its competitors). The essence of marketing concept is that the customer and not the product shall be the centre or the heart of the entire business system. It emphasizes customer-oriented marketing process. All business operations revolve around customer satisfaction and service. Marketing plans, policies and programmes are formulated to serve efficiently, customer demand. Marketing research and marketing information regarding target markets and current consumer wants as well as dealer wants to the marketing managers and on the basis of such realistic information, they take sound decisions on any marketing problem. The entire marketing mix is formulated on the basis of marketing information and research.

Two radical changes were brought about when the marketing concept was introduced after 1950, in the process of marketing.

(1) We have a steady shift from the product-oriented or sales-oriented business enterprise to the customer-oriented business enterprise. Marketing and innovation are now the distinguishing features of a business organisation from those of other types of social institutions. (2) We have also a gradual shift from caveat emptor (buyer beware) to caveat vendor (seller beware). This has clearly emphasized the social responsibility of business toward consumer and the need for consumer protection in the market place.

The marketing concept is built upon the following premises:

1. Customer-Orientation: The essence of modern marketing concept is "the firm must take its marketing orders from the market and it must produce what the market needs." All elements of business should be geared towards the customer satisfaction. Corporate plans, programmes and operations must be focused around customer needs and desires.

*2. **Marketing Information System:*** The marketing concept also emphasizes the role of information as the key to both customer satisfaction and profitability. Customer demand can never be satisfied without integrated marketing programmes based upon adequate and accurate information about customer, customer needs and competition. Information is a vital resource in planning-action - control process of management.

*3. **Systems Approach:*** Systems approach adoptes a unified view of the study of marketing. All marketing must be properly integrated and coordinated to accomplish a set of objectives.

*4. **Dual Objective:*** Marketing concept advocates serving the consumers and maximising profits at the same time. These objectives, though conflicting, can be reconciled. Guaranteed route to profits is through customer satisfaction. Profit is a by-product of supplying what the customer wants. Marketing concept is a mere lip service for those firms who have not yet resolved this conflict.

Marketing concept is not working even in the industrialised countries as per our expectations. Management thought is not geared toward creating customer satisfaction through modern marketing. Growing consumerism is the shame of marketing. May be consumerism should be considered the promise of marketing. If marketers become really market-oriented in their actions and pronouncements, the confusion between twin motives of profit and customer satisfaction can be easily removed.

A company adopting the marketing concept has three distinguishing features: (1) It has market or customer-oriented approach in business planning. (2) Corporate goals are given top priority. (3) It has a systems approach in planning, organising, controlling and coordinating its entire business as one system to achieve the overall corporate objectives. We have corporate strategic plan as well as corporate operating plan. Then there are departmental plans such as production plans, marketing plan, financial and other plans. All these functional plans are integrated and coordinated. When these plans are implemented, they are expected to fulfil market needs as well as attain the corporate goals as per corporate strategic plan. In this way, under the marketing concept, we have comprehensive customer-oriented business planning. Under customer-oriented business planning, market offerings are made to satisfy needs, wants and values of customers or target markets and hence, customers are bound to respond favourably even though we have normal promotion-mix in our marketing-mix.

Social-Orientation (Societal Marketing Concept)

It is a broadened marketing concept. Environmental trends like public welfare, concern for better living environment or quality of life, etc., indicate that organisations would have to adopt socially responsible marketing policies and plans in order to assure social welfare in addition to consumer welfare.

The socially responsible marketing concept is based on the following premises: (1) The mission of an organisation is to create satisfied and healthy customers and contribute to the quality of life (not merely to the quantity of life). (2) The organisation shall not offer a product to consumers if it is not in the best interests of consumer. (3) The organisation will offer long run consumer and public welfare. (4) Marketing plans and programmes shall duly consider consumer wants, consumer interest, social welfare and corporate needs, *e.g.*, long run profitable sales to assure survival and growth.

Benefits of Marketing Concept

A business enterprise adopting the market-oriented business approach can enjoy the following advantages: (1) Long-term success is assured to an enterprise only if it recognises that the needs of the market are paramount. (2) It enables the firm to move more quickly to capitalise on market opportunities. Marketing risks can be reduced only by knowing and understanding the market. (3) Customer needs, wants and desires receive top consideration in all business activities. (4) Greater attention is given to the product planning and development so that merchandising can become more effective. (5) Demand side of the equation of exchange is honoured more and supply is adjusted to changing demand. Hence, more emphasis is given to research and innovation. (6) Marketing system based on the marketing concept assures integrated view of business operations and indicates interdependence of different departments of a business organisation. (7) Interests of the enterprise and society can be harmonised as profit through service emphasized. (8) Marketing research is now an integral part of the marketing process and it is a managerial tool in decision-making in the field of marketing.

Selling and Marketing

Under mass production, all efforts are focused on production. Marketing is neglected. Top management tells sales department: "You get rid of it, we will worry about profits." Under a market-minded firm, management has the responsibility to create value-satisfying goods and services that consumers will want to buy.

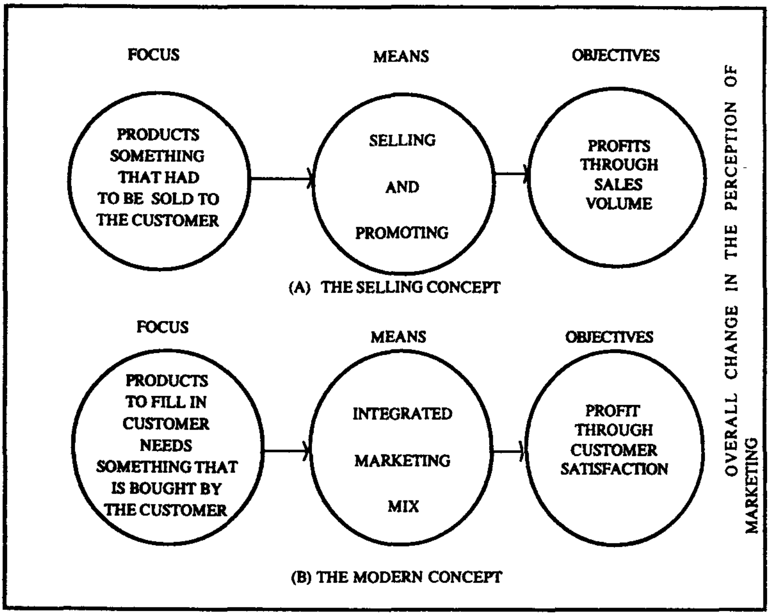


Fig. 1.8 Sales and Modern Concepts Contrasted

In his celebrated article 'Marketing Myopia', T. Levitt offers the best contrast between selling concept and marketing concept: (1) Selling focuses on the seller's needs, marketing on the buyer's needs. (2) Selling is pre-occupied with the seller's need to convert his product into cash; marketing with the idea of satisfying the customer's needs by means of the product and the whole cluster of things associated with creating,. Delivering and finally consuming it. (3) Selling aims at profit through sales volume; marketing aims at profit through serving customer demand.

P. Drucker makes the contrast between these two concepts even more diametrically opposite. Under selling concept, the need for some selling is taken for granted. Under the marketing concept, the aim of marketing is to render selling superfluous or unwanted. With full understanding of customer demand, the product must fit or match the buyer needs entirely and it should sell itself without any promotion efforts. A market minded firm's offering is determined not by the seller but by the buyer. The seller takes his cues from the buyer in such a way that the product becomes a consequence of the marketing effort, not vice versa. The suggestions from the buyer are duly incorporated in the cues from the seller and a tailor-made marketing mix at once fits in with customer needs and expectations. Ideally under marketing concept a customer should be too ready to buy the product on his own initiative. The seller has simply to ensure the availability of that product. Hence, salesmanship, advertising and sales promotion are expected to play a very minor role in marketing management under the marketing concept.

Is Marketing'Economics?

Marketing is a socio-economic process. It is closely related to economics. It is an applied economic activity. It centres round exchange and distribution. It starts when production ends and it is terminated when consumption begins. Economics is concerned with creation and distribution of utilities. Form utility is created by production and marketing. Place, time, possession and information utilities are created by marketing.

A product is a bundle of utilities. It gives economic, social and psychological satisfaction. People buy thirst, not only for what they can do, but also for what they come to mean. The information provided in the promotion of the product may actually increase your satisfaction in using it. Goods and services bought by us also indicate our social status and they do represent our culture and life styles. Delivery of a standard of living is the social function of marketing. Marketing is certainly responsible for promoting material wealth and welfare. This is obvious in all affluent countries.

TABLE 1
Sales V/s. Marketing Executive

Sales Executives (Expert in Sales Management)	*Marketing Executives (Expert in Demand Management)*
1. Sales volumé (rather than profits) is given top priority as increasing current sales would result in rising commission or bonuses.	1. They plan sales volume around profits. They aim at integrated marketing mixes to achieve profitable volume and market share at reasonable risks.
2. They are oriented toward products; markets, customers and strategies. Short run (rather than long run) views are preferred.	2. They study how the company can translate long run trends, opportunities and threats into new products, markets and strategies that yield long - term growth.
3. Individual customers (rather than market segment classes) are given primary developing strategies for market segments.	3. They want to find out ways and means offering best value to most profitable attention. Minimum interests in segments. Market segmentation is given special emphasis.

4. Field work (rather than desk work) is always favoured. No interest in developing plans and strategies and working out methods of implementation of plans.	4. They adopt good system for market analysis, planning and control and they are interested in finding out financial implications of marketing plans.

Note: Marketing executive understands buyer's wants, buying influences, channels and competition. He is able to use product features, personal selling, advertising and sales promotion, price and service to stimulate purchasing behaviour.

Modern marketing philosophy stresses the profit concept, not the volume concept. Profitless volume or volume-for-sake-of-volume-alone concept is to be discarded under the marketing concept.

GOALS OF MARKETING SYSTEM

As an economic activity, marketing has three objectives: (1) Creation of utility, (2) Cost reduction, and (3) Price stability. The main objective is to serve customer demand.

1. Creation of Utility

It wants to satisfy various wants of consumers. It can create time utility, place utility and possession utility. In this way, demand of consumers can be satisfied.

(a) Creation of Place Utility: Movement of goods from the producing centres to consuming centres creates place utility. Timber in the forest is a waste but in the city it is valuable. Sand on the seashore has no value, but in the city it is as good as gold for construction work.

(b) Creation of Time Utility: Wheat at the time of the harvest may not be very useful. But after a few months it can be sold at a profit. Marketing makes goods available at the time when they are required by the public.

(c) Possession Utility: Goods are in the warehouses of manufacturers and declares. Their possession can be transferred to consumers who want to use them. Marketing helps of ownership and possession of goods.

2. Cost Reduction

It aims at reducing the cost to give the benefit to both the parties—sellers and buyers. Marketing efficiency is based upon the cost of distribution or marketing. Marketing cost should be minimum as far as possible.

3. Price Stability

It also aims at stabilisation of prices. The entire body of producers, consumers and society in general desires stable prices and stable market conditions. Wide or extreme changes or fluctuations in prices are harmful to all. They create confusion and chaos in the market. The market is demoralised and trading becomes very risky. Bankers and insurance companies are unwilling to help trade if prices constantly fluctuate. Under such circumstances, producers, businessmen and merchants are required to bear the entire risk of loss due to sudden and wide changes in prices. Profiteering, hoarding and blackmarketing become common in marketing. In the end, the government may be compelled to nationalise trading and distribution work. In short an efficient marketing machinery must eliminate wide price fluctuations and maintain uniform prices in all markets.

Marketing aims at delivery of rising standard of living. It must serve customer demand by offering right goods in right quantity, at right prices, at right places to right customers. It aims at creating, capturing and maintaining demand through appropriate marketing mix.

Marketing executives have suggested that the marketing in order to satisfy the society should have four marketing goals, *viz.*, maximise consumption, maximise consumer satisfaction, maximise choice and maximise quality of life.

1. Maximize Consumption: Some marketing executives are of the view that the job of marketing is to stimulate maximum consumption which will in turn lead to maximum production, employment and wealth. It is assumed that the more the people spend, buy and consume, the happier they are. This means happiness increases along with the increase in the consumption. However, the assumption is not always correct. We may find many affluent people, with lot of material goods, leading unhappy lives.

2. Maximise Consumer Satisfaction: Marketing system should maximize consumer satisfaction not simply the quantity of consumption. Buying a new watch or T.V. set counts only if those adds to the satisfaction of the buyer. But it is very difficult to measure the satisfaction, one gets by using a particular product or service.

3. Maximize Choice: Some marketing people feel that the marketing system should provide to the consumer maximum product variety and choice so that the consumers would be enabled to find goods that exactly satisfy their tastes and maximize their satisfaction.

But maximizing consumer choice will result in increase in production and inventory with leading to increase in prices. This means reduction in consumer real income and consumption and this may not help in maximizing their satisfaction.

*4. **Maximize Life Quality:*** Some marketing executives are also of the view that the goal of marketing system should be to improve the quality of life of the consumer. This includes not only the quality, quantity, choice, availability and the price of goods, but the quality of the physical and cultural environment. But, even though, this is a worthwhile goal for marketing system, it is difficult to measure.

Importance of Marketing

Marketing is recognised as the most significant activity in our society. Marketing is all around us. Our daily existence, our entire economic life, our life styles are continuously affected by a wide range of marketing activities. The food we eat, the clothes we wear, the housing that shelters us, the comforts and amenities we enjoy in our home and at work places, the health and welfare activities which give use peace of mind, all these are profoundly affected each day by the marketing system. Marketing alone can put goods and services we want and need at our doorsteps, and satisfy our varied and innumerable needs and wants. Our entire economic life shall be simply paralysed, if marketing system fails to shoulder its main responsibility, *viz.*, discovering and serving the market demand.

Marketing has achieved social importance because it is entrusted with the task of creation and delivery of standard of living to society. Marketing studies continuously consumer demand which is varied and dynamic. On the basis of up-to-date knowledge of nature, character and magnitude of market demand, the firm produces wanted goods and services which are offered to consumers at fair prices through distribution channels.

Marketing System

Marketing system plays a unique role in transforming the benefits of mass production in terms of rising living standards and life styles of all people through the best system of physical distribution. The No. 1 problem in our economic life today is *distribution.* Marketers must meet this challenge to justify their existence in our socio-economic environment. Marketing has assumed tremendous importance to solve this burning problem of mass distribution. The problem of marketing today is greater than the problem of production.

Marketers must devise a comprehensive marketing system which would deliver (at profitable prices) all the goods we could produce or manufactured goods would rise substantially.

We live in a dynamic economy, and marketing system is called upon to maintain equilibrium between supply and demand in such an economy. If the two flows, viz., goods flow (representing supply) and the money flow (representing demand) *balance* each other, we have economic stability and naturally price stability, of course, at higher level of national output, employment and income. This is an ideal and desirable state of national economy.

Marketers are now confronted with a challenge to ensure an expanding market that will easily absorb the mounting amount of goods and services our producers and manufacturers are able to offer us under computerised and automated systems of production. If marketers assure equitable mass distribution, the nation can have steady economic growth and dynamic expansion with economic stability.

Economic development in developing countries entirely depends upon effective system of production and distribution the two wheels of national economy. Levels of marketing govern the levels of production. Production and distribution are two sides of the same blade. Nothing happens in our economy until somebody *markets* something. Thus, marketing plays a critical role in our economic growth. In underdeveloped country marketing is the most undeveloped part of the economy. Marketing development can change the entire economic life of such an underdeveloped country without any change in its methods of production, distribution of population, or of income.

Marketing gives benefits to both society and firm, and its importance to each has been growing rapidly since 1950. Let us enumerate the benefits of sound marketing system to society and firm.

A. Benefits to Society

1. Delivery of Standard of Living: Marketing is of critical social importance, because it has been given the responsibility and task of creating, raising and maintaining the standard of living of the society. This is the special demand of the people. Only customer-oriented business enterprise can succeed in discharging this responsibility.

2. Employment and Income: Marketing is essential for providing increasing employment opportunities so that we can have effective demand in the market. Continuous production is governed by continuous marketing. Marketing offers employment and income to about 30 to 40 per cent of the total population. It assumes special importance in India as a major source of livelihood or gainful employment.

*3. **Equilibrium between Supply and Demand:*** Marketing system can assure equilibrium between supply and demand through the process of equalisation and thereby we can have price stability as well as economic stability. If we have balance between production and distribution, there will be no danger of boom and slump in our economy. If supply exceeds demand, there will be depression. If demand exceeds supply, there will be inflation and rising prices. Marketers can indicate the precise market demand to the production managers. In essence, marketers are managers of demand. Of course, in practice, supply is adjusted with changing demand as consumer demand is not directly controlled by marketers.

*4. **Creation of Utilities:*** Marketing as an economic activity create time, place and possession utilities. Merchandising creates form utility. Exchange create ownership and possession utilities. Transport creates place utility. Storage creates time utility. Promotional activities create information utility. Hence, marketing activities create or add value through form, place, time, ownership, possession and information utilities.

*5. **Economic Development:*** Marketing development can initiate integration of and agriculture industry, can bring about maximum utilisation of present productive capacity and can develop entrepreneur and managerial talents particularly in underdeveloped countries. Thus marketing can bring about rapid development in underdeveloped or developing countries.

B. Benefits to Individual Business Enterprises

*1. **Revenue Earning:*** Marketing alone generates revenue or income to an enterprise. It can generate revenue at a cost which will leave some surplus in the form of net profits. Marketing is also defined as any activity which can yield income or profit. A business must have profit out of its activities. Marketing is considered as the art of earning profit through profitable sales, *i.e.*, sale of right products to the right people at the right price and through profitable sales. *i.e.*, sale of right products to the right people at the right price and through the right channels and by the right promotion. In fact, this is the best description of the job of a marketer. In essence, marketing is ascertaining, creating, and satisfying the needs and wants of people, and doing it at a profit. Marketing earns profit through the creation of time, place and possession utilities.

*2. **Information for Decisions:*** Marketing department is the main source of information to top management and production department for making overall corporate decisions and decisions on production. Social demands for goods and services are communicated to general manager and production manager only through marketing manager. Marketing information is the basis for all managerial decisions.

3. ***Management of Innovation and Change:*** Marketing and innovation are two basic functions of any business. We are living in a dynamic world. There is nothing permanent except change. Change alone is constant. Change is the essence of life, and change means progress. Change is the common factor in planning, organising motivating and controlling marketing activity. Marketing information system enables marketers to anticipate, meet and adapt change and creativity and accelerate conditions of change, particularly in consumer demand. Changing a business through adopting innovations, e.g., finding its new role, new customers, new products, new markets, new methods and procedures, etc., *i.e.,* even more important than merely operating the business more efficiently. Buyer behaviour and market demand are fluctuating and ever changing. A marketer is the medium for communicating to the top management changing fashions, changing preferences, changing styles, etc., and marketing communication system can easily help top management in managing profitably marketing change and innovation. Retailers communicate wholesalers about consumer demand. Wholesalers, in turn, communicate manufacturer about market demand. Marketing research also acts as source of marketing information on consumer behaviour and market trends. Salesmen of a market-oriented concern are its ears and eyes for information feedback.

Cost of Marketing

Today, marketing cost is receiving special significance. Let us clearly note that profits depend not only on revenue generation but also on cost control. Till recently, marketing was primarily considered as a generator of revenue or income and marketing cost factor was either ignored or given only lip sympathy.

The tools of scientific management (applied in production) are seldom applied in marketing and distribution. Engineering techniques can be used to control marketing costs particularly in physical distribution, *i.e.*, transport, storage inventory and order handling costs. We can also apply principles of cost accounting to reduce the distribution cost per unit of sale. There is a widespread or difference between the ex-factory price and the price paid by a consumer in the retail market. It is said that marketing costs represent about 50 per cent of the price paid by the ultimate buyers. In other words, out of two rupees paid by the consumer per unit of a product, one rupee would go to the marketing activities.

Marketing costs usually increase when producer and consumer are separated by a long distance. Because we have multiple middlemen, the cost of transport, storage etc., would also be increasing. In a wider market, distribution costs are necessary and unavoidable. They cannot be seen, worn, eaten or used. However, many a time, marketing becomes wasteful. It is felt that there are too many middlemen especially in retail trade. Shorter channel may be more efficient than a longer one. We do have inefficiency in the channel systems. Similarly, there is a definite scope in the reduction of costs of physical distribution. We can reduce the total cost of physical distribution through planned transport and storage and through scientific inventory control. Similarly, promotion cost can be reduced or minimised by carefully planned promotion of creative selling. Expenditure on advertising and sales promotion, if uncontrolled and unplanned, can unnecessarily increase the retail prices.

If a marketing manager is able to reduce the price of his product from Rs. 20/- to Rs. 15/- per unit through planned and more efficient marketing, each purchaser will have Rs. 5/- with him which he can buy something else. Lower retail prices will enable the consumer to divert his purchasing power to more worthwhile expenditure. Savings due to reduction in distribution costs can be shared by all parties—consumers, employees, shareholders and the corporation itself. In short, it is quite obvious that marketers must try to rationalise marketing costs and any increase in distribution efficiency will definitely benefit all interested parties.

Distribution cost analysis provides classification of costs according to function. We can have costs of direct selling, advertising, sales promotion, transportation, storage, order processing and so on. Such a distribution cost analysis enables marketers to control costs, and to fix sale price more wisely. It also assures minimisation of marketing cost without sacrificing product benefit and level of customer services and satisfaction.

Marketing Activities

Marketing involves three basic activities, *viz.*: (1) concentration, (2) dispersion, (3) equalisation. These functions are performed by middlemen such as merchants and mercantile agents.

Marketing management is directly in charge of formulating the marketing mix and conducting the marketing process. Marketing management is in charge of planning, organising, directing and controlling the marketing of goods and accomplish the overall marketing objective, *viz.* profitable sales with satisfaction of consumer demand.

Marketing research is the starting point in the marketing process to ascertain and identify customer needs and desires through market analysis and investigation. Resources of men, money, materials and management are employed in the marketing system to perform marketing functions and thereby achieve the satisfaction of customer demand (the purpose or mission of marketing). Marketing process covers functions as well as marketing agencies or channels of distribution. Marketing management operates through marketing agencies or institutions for distribution of goods in the market.

MARKETING IN NEW MILLENNIUM

Every country in the world today in facing problems like chronic high unemployment, a persistent deficit, falling purchasing power. At the same time there is a radical change in economic activities. The forces which are influencing these changes are :

- Globalisation
- Liberalisation
- Privatisation
- Technological Changes
- Market Power Shift

While "Globalisation" is a universal phenomenon, liberalisation and privatisation are influencing protected and developing economics.

Globalisation has caused high growth of global trade. This has resulted in explosive competition in international market. Today every country in the world is forced to enter the global market. Otherwise the economy will grow at a snail's pace and the people in the economy have to pay heavily for low quality products and services. If they open up the economy for global market, they have to face keen competition from the global players and domestic operators may suffer in the process. However, the economies cannot remain isolated and have to reach and play in the global market. In the process conventional and traditional business may be replaced by new types of business.

Technological change is also contributing for this factor. Particularly in the last ten years, countries have seen amazing growth in communication and information technology. There is an endless entry of new products into the market in consumer goods and service sector. This has occurred due to explosion in technology.

Another structural change noticed in marketing operations is "Market Power Shift." Traditionally, producers of goods and services were playing a key role in marketing. Today market is witnessing a change. There is the emergence of specialised and large retail shops, acceptance of store brands, innovative retail marketing techniques, falling mass markets, new techniques in advertising like shift from mass advertising to segment advertising as a positioning strategy, fading brand loyalty etc.

These changes have put the producers in a confused state. They have to act in various fronts to maintain their profits. Issues involved are *(i)* cost-effectiveness, *(ii)* re-structuring market operations, *(iii)* adopting automation system in marketing operations, *(iv)* strategies to be adopted to overpower rivals, etc.

Today marketing is not just selling. "It is an orderly and insightful process for thinking about and planning for markets. The process starts with researching its dynamics. The marketer uses research to identify opportunities—that is, find individuals or groups of people with unmet needs or latent interests in some product or service. "The marketing involves segmenting the market and choosing those target market segments that the company can satisfy in a superior way. The company must formulate a broad strategy and define a specific marketing mix and action plan to optimize its long-run performance. The company builds in a set of controls so that it can evaluate results and operate as a learning organisation, constantly improving its marketing know-how." (Philip Kotler). Thus the central activity in marketing for tomorrow is to look for untapped opportunities (untouched customer needs) and acting on it. The changing trend and marketing in new millennium will be,

- Consumer emphasises on quality value and satisfaction. Hence marketers should sell high quality products at reasonable price.
- Creation of permanent consumers by developing good relation with them by developing customer database in relation to their life styles, demographics, their responsiveness to changing marketing stimuli.
- Globalisation — thinking global markets and adopt marketing practices prevailing in that country's local market and culture. They "think globally and act locally."
- Entering into global partnership to develop global market. This becomes fast in new millennium. In India we notice Ford-Escort, Maruti-Suzuki etc. in automobile market. Similarly many foreign companies are associating with local companies in every sector.
- Downsizing middlemen and developing "Direct marketing." Tele-shopping, internet scanning for searching required

products and services and place direct orders will be the regular feature. Consumers can chat with other users through on line services and decide about their purchases.

- Services marketing is picking up fast and it will contribute mainly to GNP of the country.
- Integrated business functions play a major role in tomorrow's marketing practices. Fundamental business processes will emerge to satisfy customers they will have to interact with other departments (cross-disciplinary teams) for their success.
- High-tech products with short product life cycle emerge on the marketing scene and marketers have to develop strategies for their fast sales.
- Ethical behaviour becomes a must to retain customers.

POINTS TO REMEMBER

1. Concept of market has three dimensions. *(i)* Place concept, *(ii)* Area concept, *(iii)* Demand concept.
2. These dimensions of "market" concept reveal the features of market. Accordingly market may be :
   - *(i)* Meeting place for exchange is a matter of convenience.
   - *(ii)* Buyers and sellers are the two sides of the market.
   - *(iii)* Meeting of mind is more important to create a market.
   - *(iv)* Price is determined by free play of demand and supply.
   - *(v)* There is free competition among sellers.
   - *(vi)* Money acts as the medium of exchange of commodity or service in transferring ownership to buyer from seller or possesser.
3. Goods are dealt in the market are classified as *(i)* industrial goods, *(ii)* Interim goods or work-in-progress and *(iii)* consumer goods.
4. Consumer goods are further classified as convenience goods, shopping goods and speciality goods.
5. Different approaches to the study of marketing are
   - *(a)* Commodity approach.
   - *(b)* Institutional approach.
   - *(c)* Managerial approach.
   - *(d)* Systems approach.
   - *(e)* Functional approach.
   - *(f)* Legal approach.
   - *(g)* Societal approach.
   - *(h)* Economic approach.
6. Modern marketing concept projects, production orientation, sales orientation, customer orientation and social orientation.

7. The goals of marketing are: *(a)* creation of utility, *(b)* cost reduction, *(c)* price stability, *(d)* maximising consumer satisfaction, *(e)* maximising quality of life and *(f)* maximising choice.
8. Marketing in twenty first century will focus on
    - Creating permanent consumers
    - Globalisation
    - Firmly developing global partnership
    - Reducing middlemen
    - Integrating business functions
    - Ethical behaviour and
    - Marketing products having short life cycle.

STUDY QUESTIONS

Part-A (16 marks)

(2 marks questions — answer in 4 lines each)

1. What is a market ?
2. What is marketing ?
3. What is the modern view of marketing ?
4. What is marketing system?
5. Is marketing economics?
6. What is dumping? ***(B.U. Apr. '99)***

Part-B (24 marks)

(8 marks questions — answer in 30 lines each)

1. Briefly analyse the type of markets.
2. Briefly explain the various approaches to the study of marketing.
3. Analyse the role or organisations in developing marketing activities.
4. Analyse the various concepts of marketing.
5. Analyse the systems approach to the study of marketing.
6. Distinguish between selling and marketing.

Part-C (60 marks)

(15 marks questions — answer in 3 pages)

1. Briefly explain the various approaches to the study of marketing.
2. Explain the various goals of marketing system.
3. Many argue that marketing promotes waste and materialism. Do you agree to this? Why?

2

MARKETING FUNCTIONS

Classification of Marketing Functions — Functions of Exchange — Functions of Physical Supply — Facilitating Functions — Pricing — Branding and Packing and Packaging — Sales Promotion — Salesmanship — Advertising

MARKETING FUNCTIONS

Marketing process includes marketing functions. These functions help the manufacturer in taking his products from the place of their manufacture to the places of the consumer. Marketing function is defined as "as act or operation or service through which the product and the final consumer are linked together." Different writers have classified marketing functions in different ways and there is no unanimity among them regarding classifications.

Classification of Marketing Functions

Many writers have classified marketing functions into three categories, namely, Concentration, dispersion and equalisation. Equalisation means, the activity which occur between the process of concentration and dispersion; Clark and Clark have stated that "equalisation consists of a department of supply and demand on the basis of time, quantity and quality." Pyle has classified all marketing functions into two categories, namely, Concentrating and dispersing. They are given below :

A. CONCENTRATING

(i) Buying and assembling;
(ii) Transporting;

(iii) Storing;
(iv) Grading;
(v) Financing;
(vi) Risk taking.

B. DISPERSING

(i) Selling;
(ii) Transporting;
(iii) Storing;
(iv) Grading;
(v) Financing;
(vi) Risk bearing;
(vii) Dividing.

In this classification, some functions are included in both the categories. It is argued that functions under one head help to concentrate or assemble the products and under another head they help to disperse the products.

Some writers have classified marketing functions under utility heads. They are:

A. Creating time and place utility (Physical movement)

(i) Transporting;
(ii) Storing;
(iii) Packing;
(iv) Dividing;
(v) Grading;
(vi) Grade assembly.

B. Creating possession utility (Movement of ownership)

(i) Determining needs;
(ii) Creating demand;
(iii) Finding buyer aid seller;
(iv) Negotiating;
(v) Transporting likes;
(vi) Equalisation.

C. Creating form utility

(i) Formulating policies;
(ii) Financing;
(iii) Supervision;
(iv) Accounting;
(v) Securing information;
(vi) Risk bearing.

The above classification includes large number of functions, but some of them (example: accounting and supervision) are non-essential functions.

Clark and Clark have divided the marketing functions, into the following three divisions:

A. Functions of Exchange

(i) Buying and assembling
(ii) Selling

B. Functions of Physical Supply

(i) Transportation
(ii) Storage

C. Facilitating Functions

(i) Financing
(ii) Risk taking
(iii) Standardisation and grading
(iv) Market information

This classification has been widely accepted because all the essential marketing functions are included under it. A brief explanation of all these marketing functions is given here.

FUNCTIONS OF EXCHANGE

In the process of transferring title of goods, the two important functions necessary are buying and selling. These are complementary functions. Buying helps the processes to procure goods of required quality and quantity and at a price satisfactory to him. The purpose of selling is to find, buyers to whom goods can be sold at a price satisfactory to the seller.

1. Buying

The function of buying consists of those activities involved in assembling goods under a single ownership. It is done either by businessmen or consumers. Its immediate purpose is to bring goods where they are wanted for production or resale or consumption. Buying also involves the following subsidiary functions.

(a) The Function of Planning: The buyers must plan in order to determine their needs. Business buyers must study their own markets to know the quantity and quality of goods they should buy. Consumers must determine the type of products that they desire to possess.

(b) The Contractual Function: This involves finding out the sources of supply. This function is more relevant in the case of consumers.

(c) The Function of Assembling: Modern conditions of production, marketing and consumption make assembling an important activity. Goods produced at different places must be assembled in order to serve promptly the needs of manufacturers, wholesalers, retailers and consumers.

(d) Negotiation and Contractual Function: The terms and conditions of purchase are negotiated with the seller. After this final agreement are made and the transfer of titles take place.

2. Selling

The primary task of marketing is to bring seller and buyer together. It is essential because no exchange can take place until each knows the desires of the other. At all stages of marketing, it is necessarily for some one to sell. Selling necessary takes the following subsidiary functions:

(a) The Function of Product Planning: Though product planning is a production function, it is important to marketing also. A satisfactory product is the starting point of entire marketing activity. The seller must offer a product that satisfies the needs and desires of buyers. He must know what kind of goods he should produces and when to produce. He must make them available to buyers at a price they are willing to pay.

(b) The Contractual Function: This refers to the location of buyers and maintaining contacts with them.

(c) The Function of Demand Creation: This include all efforts of sellers to induce buyers to purchase their products. In order to increase sales, demand creational efforts like personal selling, advertising. etc. are undertaken by seller.

(d) The Negotiatory Function: The terms and conditions of sale are negotiated between sellers and buyers. The terms of sale include such matters as qualities and quantities of products, time and method of shipment, time and method of payment and so on.

(e) The Contractual Function: This involves entering into the final agreement to sell goods including the transfer of its title.

FUNCTIONS OF PHYSICAL SUPPLY

This physical supply of goods from the producers to consumers takes place by means of transportation and storage. The function of exchange will be effective only through the functions of physical exchange.

1. Transportation

Transport development makes possible large scale production, specialisation and widens the market. It enables the flow of goods produced at one place to places of consumption the world over. Transportation service has also added to the variety of goods available for consumption. Besides, it has reduced the cost and increased the speed of their physical distribution.

2. Storage

Storage is essential mainly to the process of equalization. Its function is to hold the stocks of goods from the time of their production to the time their use. Goods must be stored for various reasons — goods produced seasonally may be used throughout the year; goods meant for use during the short period may be produced over the longer period, manufacturer store raw material for ready supply, and the goods are also stored in the hope of getting a higher price in future

FACILITATING FUNCTION

In addition to the functions of exchange and physical supply, other facilitating functions involved in marketing are financing, risk taking, market information, standardisation and grading.

1. Financing

Normal marketing process needs vast financial resources for investment in land, buildings, furniture and so on; for maintaining the stock of goods and extending credit to buyers. To meet these demands, large capital is necessary and the means by which this capital is supplied is called 'financing'. There are people who have the skill required to run a business but have no capital. At the same time, there are many others who have capital but lack the time, the ability or the desire to invest. Again, in some businesses, there are seasonal peaks during which large capital is required. Firms engaged in such businesses should have either huge amount of capital or they must be able to borrow it. The function of finance is to meet such problems.

2. Risk Taking

The whole of the marketing process involves undoubtedly a risk. The risk is borne by those who take part in marketing. There is risk of loss, fire, flood, theft, deterioration, damage, bad debts, etc. Loss may also arise due to changes in the conditions of supply and demand and changes in value of money. Some of these risks can be insured against wholly or partly and then there are many others risks which must be borne by the businessmen. The extent to which these risks can be transferred, borne and incurred against are significant in the marketing process.

3. Market Information

The function of collection, communications, and interpretation of market information is also important to marketing. Modern marketing requires information such as, the number of consumers and their locations, their purchasing power, their product and brand preferences, their motivation and so on. Many of the major decisions taken by the businessmen are based on their interpretation of the available problems, such as whether to go into a business, when and where to sell, whether to change the existing products or product lines, whether to sell directly or through middlemen, whether to make any change in the price, and the marketing methods to meet the demands of the changing market conditions. For taking appropriate decisions on all such issues, market information must be accurate and adequate. It must be properly interpreted by those who use it. Decision making process in the field of marketing should be based on adequate, up to date, reliable and timely information.

In view of this, marketing information service has assumed a unique importance in our business system. Modern means of communication can be employed for dissemination of market information. Organised markets, banks, government agencies act as clearing houses of vital market information.

Computer-based marketing information system offers several benefits to marketing managers. These are: (1) more timely information, (2) more complete information, (3) more reliable and thorough analysis of data (4) more thorough evaluation and consideration of many alternatives.

Under the marketing concept, *i.e.*, customer oriented marketing approach, supply becomes the function (result) of demand. Demand is the main controlling factor and demand analysis must be the foundation of all marketing functions. We have four aspects of demand management. (1) analysis and forecasting of demand, *i.e.*, Market research, (2) product planning and development to match the anticipated demand, (3) influencing and stimulating of demand by promotive sales strategy and pricing, (4) serving of demand *i.e.*, physical distribution, service after sale etc.

4. Standardisation and Grading

The term standardistaion refers to the establishment of standards for products. A standard is a measure of designation for quantity. It consists of list of specifications. It maybe based on size, colour, appearance, chemical content, strength, shape, specific gravity, amount of foreign matter, amount of moisture, *etc.,* A standard carries the idea of uniformity. It means, the product brought at different places or from different sellers will be of the same quality. When we call a commodity a standard one, we mean that it is of a certain quality which is dependent upon chemical contents, flavour, size, colour, appearance, *etc.*

When standardised goods are further subdivided into well defined classes, they are known to have been graded. Established standards for form goods are commonly called grades. In the discussion on marketing, the word grading is used as being synonymous with standardising, but it should be noted that what is most important is the standard, and grading usually follows standardisation. The term 'standard' has a broader significance than 'grade'. Grading is simply a means of dividing the products of varying quality, size, etc., into lots conforming to certain standards.

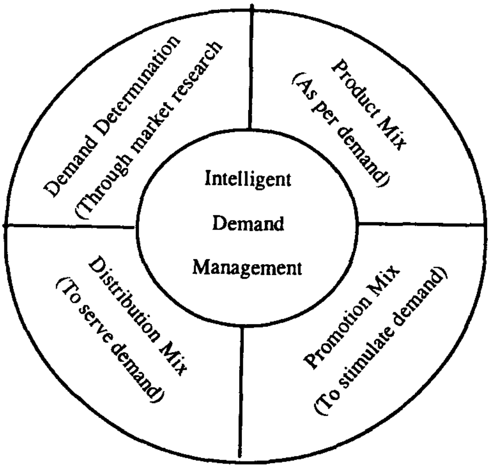


Fig. 2.1 Aspects of Demand (Supply a function of Demand)

Apart from the various functions of marketing stated by Clark and Clark under three categories. there are some other functions which facilitate marketing of goods. A brief explanation of these functions is given here.

PRICING

Pricing is the function around which the supply and demand for a product balances. In economic theory, pricing plays a very important part in the equilibrium of a firm under both pure and monopolistic competition. There is in reality, segments of market for each product. Hence, the prevalence of monopolistic or imperfect competition in the market.

Price is the primary source of revenue which every firm tries to maximise. The firm at the same time tries to expand the market in order to sell more. So, the firm is concerned with maximising the sales. This is possible only at a right price. The price has to be neither at high, which will drive away the buyers, nor low, which will drive away the sellers being in loss. Hence, pricing decision is not only important but also has to be changing. The price set in the beginning has to be reviewed and reformulated from time to time to maximise the sales.

The various factors which influences the pricing decisions are: Objectives of business, competition, Product and promotion policies, Price elasticity, conflicting interests of manufacturer and middlemen, Influence of non-business groups, etc.

BRANDING

The word brand is a comprehensive term. A brand is name, term, symbol or design or a combination of themes, which is intended to identify the goods or services of one seller or group of sellers and to differentiate them from those of competition. A brand identifies the product for a buyer and gives seller a chance to earn goodwill and repeated patronage.

Branding is the practice of giving a specified name to a product or group of products from one seller. The specified name creates individuality in the product and hence, it can be easily distinguished or recognised in the market from the rival products.

The marketer can build up a bright image of his organisation around the brand. Branded products can be easily recognised by the customer in the retail shop. It offers protection to the consumer as it identifies the firm behind the product. Branding enables the firm of assured control over the market. It creates an exclusive market for the product. Branding, by differentiating a product from the products of competition, enables the brand owner to establish his own price which cannot be easily compared with the prices of competing goods.

PACKING AND PACKAGING

Packing may be defined as the general group of activities in the planning of a product. These activities concentrate on formulating a design of the package and producing an appropriate and attractive container or wrapper for a product. The container itself can act as a forceful salesmen at the point of purchase or an effective medium of advertisement ensuring impulse buying. Almost every article has to be packed to make a trip to the ultimate consumer. Packing provides handling convenience, maintains freshness and quality of the product, and prevent the damages of adulteration of the product.

Packaging is much more than mere packing. Packaging is marketing necessity. The problem does not want just the product. They want explanation, assurance, confidences and praise; all integrated or combined with a pleasant and eye catching get-up or appearance on the top to gain action *i.e.*, to close the sale. Thus, a good package ensures ultimate success of the product as a commercial venture. Packaging is an invaluable and to decision making by the customers and is an important clue to buyers. Package is 'advertising on the shelf', a means of attractive display in the retailers shops.

SALES PROMOTION

Sales promotion is one of the facilitating functions of marketing and is considered to be a key element in marketing strategy. Prospective buyers must be aware of the *(a)* want of satisfying characteristics of the products *(b)* as well as the availability of the product.

Therefore, the talks assigned to the promotions are establishing and maintaining communication with market segments.

These are various methods to achieve these objectives. Amongst the important promotional methods are, personal selling and advertising. Other methods, each appropriate and effective under particular circumstances are, packaging, branding, point of purchase display, discount sale, etc. However, it is the main determination of the proper 'mix' of advertising, personal selling and other forms of promotion which is a major problem confronting the marketing management.

SALESMANSHIP

Salesmanship involves direct personal contact of the seller or his representative with the buyer. J.S. Knox has defined salesmanship as the art of persuading people to purchase goods which will give lasting satisfaction, by using methods which consume the least time and efforts. In personal contact, salesmen make direct contact with the buyer and negotiate for the sale of the goods and services. The efficiency in selling is directly dependent upon the skill with which it is carried on and the individuals who perform this task.

Some of the advantages of salesmanship are, the salesman gives advice to the buyers and helps there to take decisions. He clears the buyers doubts, shows samples and demonstration the product. He helps the indecisive buyers to make their minds and done the sales. He also researches out for prospective buyers to create new demand for the product.

ADVERTISING

It is not just enough for a business enterprise to produce good quality products. These must be made known to the public through sales activities. The task of selling goods and services is made much easier through advertising. Business has found that advertising is a direct aid to the salesman, simply because consumers must be informed about the products before they can bring them.

Advertising thus makes the final job of selling less difficult. Advertising is beneficial to the manufacturer, salesmen, retailers, consumers and to the community in general.

POINTS TO REMEMBER

Classification of Marketing Functions :

1. **Functions of Exchange**
    - *(a)* Buying
    - *(b)* Selling
2. **Functions of Physical Supply**
    - *(a)* Transportation
    - *(b)* Storage
3. **Facilitating Functions**
    - *(a)* Financing
    - *(b)* Risk taking
    - *(c)* Standardisation and grading
    - *(d)* Market information
    - *(e)* Pricing
    - *(f)* Branding
    - *(g)* Packing and packaging
    - *(h)* Sales promotion
    - *(i)* Salesmanship
    - *(j)* Advertising

STUDY QUESTIONS

PART - A (16 Marks)

(2 marks questions —Answer 4 lines each)

1. What do you mean by functions of exchange?
2. What do you mean by functions of physical supply ?
3. What are facilitating functions ?
4. What do you mean by sales promotion ?
5. What is packing ?
6. Define advertising.

PART - B (24 Marks)

(8 marks questions —Answer in 30 lines each)

1. Define salesmanship and state its importance.
2. What is meant by sales promotion ?
3. Give a brief explanation of functions of physical supply.
4. Give a brief explanation of functions of exchange.
5. State the functions of marketing management? ***(B.U. Apr. '99)***

PART- C (60 Marks)

(15 marks questions - Answer in 3 pages)

1. What are facilitating functions ? Give a brief explanation of these functions.
2. Give a brief explanation of function of exchange and function of physical supply.

3

MARKETING ENVIRONMENT
(With particular reference to India)

Organisation Under Systems Approach -— Marketing Management And Its Environment — Micro — Macro — (with Reference to India) - Rural And Urban

ORGANISATION UNDER SYSTEMS APPROACH

A system is a set of objects, elements or components that are inter-related and interact with one another. These elements operate on inputs such as physical resources, human resources and information to accomplish common (total system) objectives such as productivity and satisfaction.

A system consists of inputs, processor, outputs and feedback. A system is always goal-oriented and aims to achieve certain objectives. It has its own environment.

It draws inputs from its environment. It offers outputs in the form of products, services, information and ideas to satisfy environment demands. Processor transforms inputs into outputs. It may be a machine, an individual, a computer, a chemical or any other equipment. When the process is designed by the manager, it is termed as a white box. However, in most cases the transformation process is not known in detail and it is too complicated. Hence, the processor is called a black box. Outputs are the purpose for which the system exists. It should be noted that the feedback loop acts as a means of control.

An organisation under the systems view is now recognised as a dynamic whole (not as a collection of separate functions). It is a system in which the flow of information, materials and manpower, capital equipment, and money set up forces that determine survival, growth and prosperity and decline of a business.

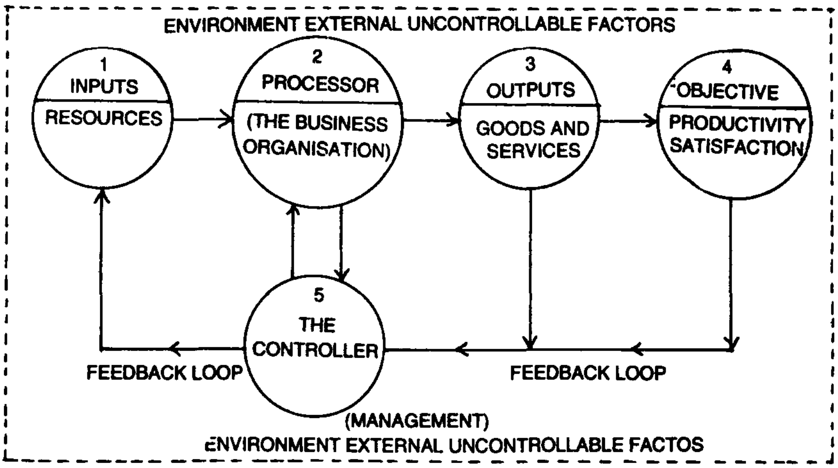


Fig. 3.1 An Organisation as an Open, Adaptive System

from it, provided machine is working properly. Resources received by the organisation from the environment are controllable variables. They are called inputs. These company resources are: (1) Plant and equipment, (2) Material resources, (3) Financial resources, (4) Personnel resources, (5) Technical and managerial know-how, (6) Information, and (7) Corporate image.

Environment comprises external factors over which the organisation and management has little control. These relatively uncontrollable external forces are: (1) Demography, (2) Economic environment, (3) Social and cultural environment, (4) Political and legal environment, (5) Technological environment, (6) Ecology, (7) Competition, and (8) Demand, *i.e.*, Customers who constitute business. Environment provides resources and opportunities. It also puts limits and constraints on the organisation, and influences its survival and growth.

Output of an organisation in the form of products, services and information An organisation continues to exist when it provides goods and services as per demand of the environment society. The activities and results of the organisation as a processor must be acceptable to its environment. The environment reacts to the output of an organisation. On this reaction, *i.e.*, feedback, the environment determines its future inputs into the organisation.

An organisation is goal-oriented and it operates to achieve certain objectives. A customer-oriented organisation has twin objectives: economic performance, *i.e.*, profitability and social performance, *i.e.*, satisfaction of all interested parties, such as customers, citizens, employees and the government controller of the system through feedback information modifies inputs and for processing and ensures outputs which will achieve the objectives according to a plan.

A business organisation is a socio-economic system of a larger environmental system. It must continuously adapt and adjust to the opportunities and threats or risks and uncertainties presented by changes in the environmental forces. We are living in dynamic and complex world. If our organisation acts as a closed system (as thought by classical economists), always look inside, and concentrates or focuses its attention exclusively on the inner environment, and it fails to keep up with changes in its outer environment, *e.g.*, changes in customer demand, changes in market conditions and degree of competition, changes in public reactions, technologies, political and legal conditions, economic conditions, labour relations, etc., it is bound to lose opportunities and will have to face unforeseen threats. Unless our enterprise responds positively in time to the dynamic environmental demands, how can it assure its survival and if possible, profitable growth or progress?

An organisation does not live in a vacuum. A business enterprise and its environment are mutually interdependent — interacting with one another continuously. It exists in the world of resources, opportunities and limits. It can survive only and thrive only when its environment welcomes its output of goods, services or ideas and is inclined to approve and endorse its activities. Its environment provides resources and lays down limits and constraints on its activities. The enterprise, in turn, is expected to offer goods and services to the people living in its environment so that the needs and desires of those people are duly satisfied and their life styles are maintained as per their aspirations and expectations.

When the enterprise is conducting its producing and marketing activities, it has to ensure that these activities do not create undesirable effects and prejudice the community interests or welfare. For instance, monopolistic combinations killing competition and exploiting consumers cannot be accepted by the environment and public reactions may create a threat of nationalisation. A chemical or paper factory or a refinery under the wider marketing concept cannot create air, food and water pollution. Business units have to adopt socially responsible marketing policies to ensure not only consumer satisfaction but also community welfare and satisfaction. The environment today demands not merely the quantity of life but also the quality of life. Similarly, unfair trade practices such as price collusion, hoarding, black-marketing, adulteration, misbranding, etc., may exploit consumers in the market place. Government is compelled to introduce consumer legislation to protect consumers against marketing malpractices mentioned above. In short, through feedback information the environment (members of society) reacts to goods and services offered by the enterprises. The environment evaluates these and decides the future allocation of resources and constraints to be placed on the affairs of the enterprise.

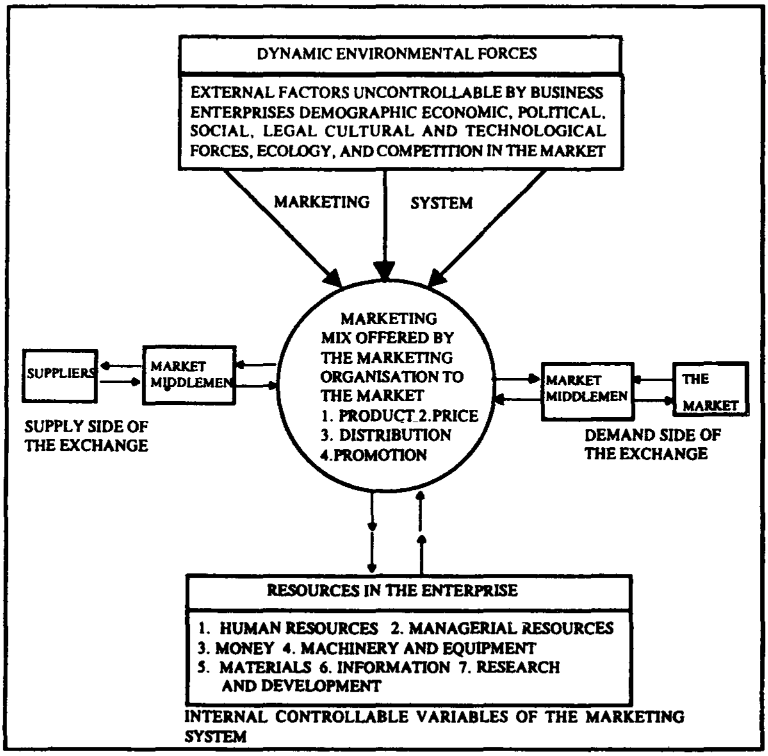


Fig. 3.2 Marketing System Operating within Dynamic Environment

Comments

> A marketing system is an interacting set of institutions, activities and flows in order to help exchange operations between the firm and its market. Marketing system is called upon to function within the framework of certain forces which constitute the environment of marketing. The dynamic marketing environment has three types of forces: *(a)* External uncontrollable forces, *(b)* External partially controllable forces, *(c)* Internal controllable forces. External uncontrollable forces are: *(a)* demography, *(b)* economic climate, *(c)* Socio-cultural environment, *(d)* technology, *(e)* ecology, *(f)* political and legal climate, *(g)* competitive forces, *(h)* total demand. These are termed as environmental constraints. Profitable solutions to marketing problems can only be realised if the significance of environmental change on the firm and its customers is recognised. These external forces which affect marketing opportunities, consumer behaviour and business action must be reflected in marketing policies, plans, strategies, programmes, and decisions. The essential point is that the business organisation must constantly monitor its environment.
>
> External partially controllable forces are: *(a)* customers or the market, *(b)* suppliers, *(c)* market intermediaries. Internal controllable forces are: *(a)* Corporate resources—human and non-human resources called 5 M's., men, money, machinery, materials and management, *(b)* Marketing mix components such as product, price, distribution and promotion. Marketing mix is the heart of a marketing system.

MARKETING MANAGEMENT AND ITS ENVIRONMENT

Marketing management acts as an important item (sub-system) of the marketing system. The interacting and interdependent groups of items in the marketing system of a business enterprise are: (1) Marketing management, (2) Articles of exchange, *i.e.*, products/services entering the market or circle of exchange, (3) Marketing agencies linking producers and consumers, (4) The target marketing representing the customers, able and willing to buy your products or services, and (5) Environmental forces acting as parameters and constraints within which the marketing system is expected to operate. We are interested in these changing and uncontrollable variables influencing our marketing plans and policies and programmes.

Marketing management of a business enterprise must operate within the framework of forces which constitute the environment of marketing. An enterprise does not live in a vacuum. Marketing strategy in the form of marketing mix is formulated within a framework involving many uncontrollable variables called marketing parameters. These environmental factors must be duly considered in planning any marketing programme. There are eight interrelated environmental forces considerably influencing the marketing management system of a business organisation. They are dynamic as well as uncontrollable forces included in the environment of marketing system of a business enterprise. They are: (1) Demography, (2) Customer needs and desires, (3) Competition, (4) Economic conditions, (5) Social and cultural climate. (6) Science and technology. (7) Legal and political conditions, and (8) Ecology. The above figure illustrates the marketing management's framework.

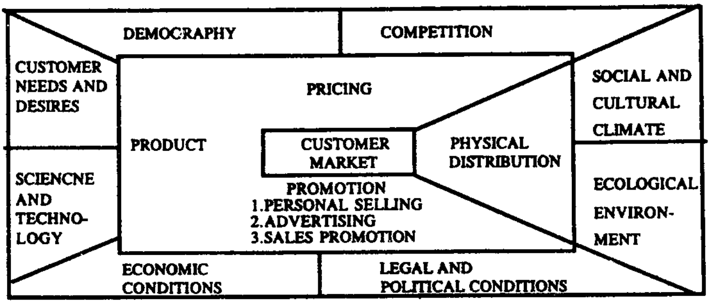


Fig. 3.3 Marketing Management Framework

Comments

The heart of the marketing system of a company is its marketing mix. Marketing management evolves the marketing mix in relation to its external environment. Hence, it must respond in time to changes in the marketing environment and it must adopt intelligent forecasting devices to anticipate the trend and intensity of environmental changes. It has to use internal controllable resources in the best manner while adjusting quickly to changing demands of the marketing environment. Marketing system constitutes the set of institutions and flows (of goods/information) which influence the process of exchange. It comprises: (1) the organisation, (2) the market, (3) marketing intermediaries, (4) suppliers, and (5) competitors. These five ingredients form the core of the marketing system. Then around this core we have the interested institutions and groups of people, *e.g.*, mass-media, general public, financial institutions, government and legislators. The non-controllable environmental forces include demographic, economic, competitive, cultural, political, legal and technological forces.

Marketing management is responsible for opportunity assessment, marketing planning and programming, marketing organisation and leadership and evaluating and adjusting marketing effort under dynamic marketing environment.

A passive firm will simply respond to the environmental forces in its own distinctive ways. On the other hand, an aggressive and innovative firm consciously attempts to influence, shape and even modify the so-called uncontrollable elements of the business climate. However, such aggressive business enterprises are very few and they are in small minority. It should be noted that all business organisations must monitor their environment to understand it and evaluate it accurately.

Marketing management before formulating marketing mix must take a look at the environment in which the enterprise will be operating in future. It is well known that environment affects business planning. The more a business understands its environment, the better chance it has for profitable growth. The business environment represents a complex of shifts in the structure of society and the economy, in the state of technology, in the customer demand in the market place, in the policies and requirements of the governments, and in the state and character of international tensions. In short, it is the sum of all the factors outside the control of a company's management which can change, and when changing carry with them sizable monetary impacts on the markets for particular products and services. Please note that environment changes are the starting point in the process of growth; they act as a stimulus that increases the opportunities for growth, without the help of which a company is fighting difficult odds. Management should first establish a programme for consistently monitoring the market environment like an early-warning radar system. Second, a means must be developed for sending of innovative ways of fulfilling a growing need or ways to seize the opportunities and avoid the threats. The knowledge of changing environmental forces will enable the enterprise to tune its plans correctly with the changing trends in the market and adjust quickly with changes in the environment. Let us remember that all the environmental forces are subject to change and we are living in a dynamic world. Changes in the environmental forces are challenges to marketing executives and these must be met in order to secure profitable growth by marketing management. A firm ignoring environment will face certain death. An adaptive firm has good prospects of survival and growth. An innovative firm can prosper and even enable changes taking place in the environment. An innovative firm is expert in the management of change. It always emphasises planned, systematic change.

Marketing management has to assess the marketing opportunity. It has to analyse anticipated changes in the market environment. These changes have to be related to the profitable use of corporate resources. Decisions arrived at on the assessment of marketing opportunity are then translated into marketing plans and policies.

To understand the various components of marketing environment, it may be classified into two categories.

(a) Macro — Environment (External, uncontrollable)

(b) Micro — Environment (Internal, controllable)

(A) MACRO ENVIRONMENT (EXTERNAL, UNCONTROLLABLE)

The marketing management must keep close contact with many uncontrollable forces. To be successful in marketing, we must learn to accommodate them, and if possible, to take advantage of them, in our marketing plans and policies. These uncontrollable forces are the parameters of the market. They act as constraints on the organisation at all levels. Constraints are limitations on freedom of action. Let us describe, in brief, these limitations.

1. Demography: Market means people with money and with a will spend their money to satisfy their demand. Hence, marketing management is directly interested in demography, *i.e.*, scientific study of human population and its distribution structure. Growing population indicates growing market particularly for baby products. If a baby boom is anticipated, the market potential is tremendous. But when we have reduction in the birth rate and the lower rate of growth of population, many companies specialising in baby products will have to adjust their marketing programme accordingly. Population forecasts during the next decade can be arrived at with considerable accuracy and on the basis of such forecasts marketing management can adjust marketing plans and policies to establish favourable relationship with demographic changes. Demographic analysis deals with quantitative elements such as age, sex, education, occupation, income, geographic concentration and dispersion, urban and rural population, etc. Thus, demography (study of population) offers consumer profile which is very necessary in market segmentation and determination of target markets. Quantitative aspect of consumer demand is provided by demography, *e.g.* census of population, whereas qualitative aspect of consumer demand such as personality, attitudes. motivation, perception, etc., is provided by behavioural analysis. Good demographic analysis combines several factors such as population rate of growth or decrease, income or economic power, life cycle analysis of consumer, occupation, education and geographic segmentation. Both demographic and behavioural analyses enable marketing executives to understand the basis of market segmentation and to determine marketing reaction to a new product or consumer reaction to an advertising campaign.

2. Economic Environment : People constitute only one element of a market. The second essential element of a market is purchasing power and willingness to spend. Then only we have effective demand. Hence, economic conditions play a significant role in the marketing system. High economic growth assures higher level of employment and income, and this leads to marketing boom in many industries.

Marketing plans and programmes are also influenced by many other economic items such as interest rates, money supply, price level, consumer credit, etc. Higher interest rates adversely influence real estate market and markets for consumer durables on instalment basis. Exchange fluctuations, currency devaluation, changes in political and legal set-up influence international marketing. The level of take home pay determines disposable personal income and it influences marketing programmes directly. Economic conditions leading to recession can influence product planning, price fixing, and promotion policies of a business enterprise. Marketing mix must be formulated on the basis of important economic indices.

Since 1974, *i.e.*, after the energy (oil) crisis, all over the world we have inflationary trends and general level of prices is continuously rising. When a high rate of inflation *e.g.*, 12 p.c. rate per year becomes a reality, the whole economic structure of a country is in danger. Inflation coupled with scarcity conditions can radically change consumer buying habits. Many purchases may be postponed or even eliminated. Higher petrol prices created a trend in favour of small cars and public transport. Inflationary conditions affect adversely the market for consumer durables. Economic forces can have positive or negative effects upon the promotion efforts of business units. State of trade and business booms and slumps constitute the economic aspects of marketing environment.

3. Social and Cultural Environment: Social and cultural forces usually influence the welfare of a business concern in the long run. We have everchanging society. New demands are created and old ones are lost in due course. Marketing management is called upon to make necessary adjustments in marketing plans in order to fulfil new social demands.

There are three aspects of social environment: (1) Changes in our lifestyles and social values, *e.g.*, changing role of women, emphasis on quality of goods instead of quantity of goods, greater reliance on governments, greater preference to recreational activities, etc., (2) major social problems, *e.g.*, concern for pollution of our environments socially responsible marketing policies need for safety in occupations and products, etc., (3) growing consumerism indicating consumer dissatisfaction since 1960. Consumerism is becoming increasingly important to marketing decision process. Social environment in many countries is responsible for emphasising social responsibility of business and customer-oriented marketing approach. Societal marketing concept demanding not only consumer welfare but also citizen welfare, is due to the prevalent social environment and social or cultural values in advanced countries. Marketers are now called upon not only to deliver higher material standard of living, but also assure quality of life, *i.e.*, environment free from pollution.

4. Political and Legal Forces: Political and legal forces are gaining considerable importance in marketing activities and operations of business enterprises. Marketing system are affected by government monetary and fiscal policies, import-export policies, customs duties. Legislation controlling physical environment, *e.g.*, anti-pollution laws also influence marketing plans and policies. Then in many countries we have specific legislation to control marketing, *e.g.*, forward market of commodities and securities. Consumer legislation tries to protect consumer interests. We have also legislation to control and regulate monopoly and unfair trade practices in many countries. Marketing management cannot ignore the legislation regulating competition and protecting consumers. Public policy affects marketing management. Business enterprises may not be allowed to resort to price discrimination, false and misleading advertising, exclusive distributorships and trying agreements, deceptive sales promotion devices, division of markets, exclusion of new competitors and such other unfair trade practices. Marketing policy-making is influenced by government policies and controls throughout the world. In some countries the government, rather than the market, provides dominating marketing mechanism.

5. Science and Technology: Unprecedented development of science and technology since 1940 has created a phenomenal impact on our lives. We have witnessed in one generation radical changes in our life-styles, in our consumption pattern as well as in our economic welfare.

The phenomenal development of science and technology has completely transformed life and living conditions in developed and developing countries. Ever-expanding markets create conditions that lead to technical progress. In most cases, the market was the mother of invention. The basic incentive for inventions through research and development of profit-seeking *through* meeting market needs. Technology is the way things are done; the methods, materials and techniques used to achieve commercial and industrial objectives. Modern economics have been shaped by technology. New technologies offer a main source of economic growth. Many businesses are earning handsome profits from products which did not exist 50 years ago. Electronic industry is the best example of exploiting new marketing opportunities. Computers and airplanes are entirely new industries. Digital watches are killing the marketing prospects of traditional watches. Artificial fibre cloth has almost killed the pure cotton textile industries in many countries. Television has adversely affected radio and cinema industries. Seventy per cent of food products now available to a housewife in highly industrialised countries were simply non-existent fifty years ago.

Consumer purchases and the manner in which they are consumed reflect a society's life-style Technological forces help to shape changes in the style of living of consumers. Marketing management with the help of technology can create and deliver standards and styles of life in, many countries. It has the responsibility of relating changing life-style patterns, values and changing technology to market opportunities for profitable sales to particular market segments.

6. Competition: Although price competition is still present particularly in the retail market, non-price competition is of paramount importance for the manufacturer. No marketing decision of major importance should be made without assessing competition in a free market economy. The marketing manager has little or no control over the actions of competitors. He can merely anticipate competitive actions and be prepared to deal with them. Competitors considerably influence the company's choice of marketing strategies particularly in relation to selection of target markets, suppliers, marketing channels as well as in relation to its product mix, price mix, and promotion mix. In fact formulation of marketing mix is on the basis of anticipations of competitors' moves. Marketing strategy is itself a plan to fight against competition and to win in the battle of competition. The aggressive marketing manager knows that his marketing mix will encourage competition and he must anticipate the nature of this reaction while assessing his own situation. Similarly, he must understand that activities of his rivals are bound to limit the marketing opportunities of his firm sooner or later. Marketing strategies recognise the force of competition of a free market economy and these strategic plans are always based on the anticipated moves of the opponent. You have to out manoeuvre your opponent and then only your survival is assured in a competitive environment. Competitive conditions within an industry are ever-changing and perplex the marketing manager frequently. But changing inter-industry competition can keep a marketing manager sleepless for a long time. Marketing manager of a cotton mill has to face the introduction of synthetic fibres and cotton king was dethroned overnight, in many countries after 1960.

7. Ecology (Nature): In the wider concept of marketing, ecological environment has assumed an unique importance in production and marketing in modern economies. Environmental experts are vigorously advocating the preservation and survival of our entire ecological systems. It is said that pollution is an inevitable by-product of high consumption economic systems prevalent in the advanced countries. The marketing system of an enterprise has now to satisfy not only the buyers of its products (consumers/users) but also societal wants which may be adversely affected by its activities and then only it is entitled to achieve its profit objective. In future marketing executives will have to pass due attention to the quality of our life and our environment. They are expected to take measures to conserve and allocate our scarce resources properly. Above all, they must show active interest in welfare of community life. Prevention of all types of pollution and efficient use of our scarce resources can restore the balance in our ecological environment. Economical use of energy and natural resources must be essential ingredients of marketing strategies. Ecology has assumed unique importance under the societal marketing concept since 1965.

8. ***International Environment*** **:** This environment consists of those factors which have an impact on foreign trade of a country. These factors may be foreign policy, international treaties and foreign investment policy and various acts which are concerned with the dealings with the other countries in trade matters. With the changes in government and their policies, there will be change in international environment. With the introduction of economic reforms and the policy of libralisation in our country, our exports have increased considerably and many foreign investors started to invest capital in our country. With the formation of WTO, there is a tremendous change in the international trading environment.

9. ***Customer Demand:*** Customer demand is ever-changing, unpredictable and also unmeasurable with accuracy. It is also complex and very intricate. Under the market-oriented marketing philosophy, customer needs and desires act as the centre of the marketing universe. In fact marketing system must respond to the customer needs and desires in all respects. Marketing policies, programmes and strategies are planned, organised and executed with the main objective of customer satisfaction and service. It is in marketing that we satisfy individual and social values, needs and wants — be it through production of goods, supplying services, fostering innovation, or creating satisfaction. According to P. Drucker there is only one valid definition of business purpose: *to create a customer.* The business enterprise aims to earn profits through serving the customer demand. It now thinks more in terms of profitable sale rather than more sales-volume for its sake. Today marketing in the firm begins and also ends with the customers. First we have to identify customers *i.e.,* our market. Than we develop our marketing programme in the form of appropriate marketing mix to reach our customer, *i.e.,* our target market. We offer our output of goods and services primarily to secure continuous customer satisfaction. Repeat sales are possible only on customer satisfaction. The firm's profits indeed its very survival are linked to the satisfaction of customer needs and wants. Despite this obvious logic, even today many firms are still production or sales-oriented and not market-oriented as yet.

(B) MICRO-ENVIRONMENT (INTERNAL CONTROLLABLE FACTOR)

The Micro Environment: The micro-environment of our organisation consists of those elements which are controllable by the management. Some of them are explained here.

1. ***Organisation:*** The organisation consists of many departments such as marketing, production, finance, personnel etc., and each department is placed under the control of a manager. All the departmental heads work in co-ordination so as to achieve the organisation objectives The marketing department which is one of the important organs of the organisation has to stream line it activities so that it would be in a position to achieve its targets.

2. ***Corporate Resources:*** This comprises of men, material, money, machinery and management. All these are controllable and be adjusted according to marketing planning and policy. However, these factors influence the marketing environment. The organisation and the environment are interdependent. The availability of labour, material, power are determined by environment. Organisation receives certain inputs like plant and machinery, materials, finance, personnel from the environment. The utilisation of these resources and manufacturing activity depends upon the company's external environment. Corporate resources are well within its reach and can be varied in accordance with the manufacturing programme.

3. ***Marketing Mix:*** Another controllable factor is marketing mix. It consists of four elements or variables, *viz., (a)* Product, *(b)* Price, *(c)* Promotion and *(d)* Place of distribution. The organisation can vary the price, or production, can plan the promotion activity according to external environment and can have its own distribution strategy keeping in view the competition in the market, consumer satisfaction and cost effectiveness.

4. ***Markets:*** Markets consist of different types of purchasers, *e.g.* individuals and householders for personal consumption, producer and manufacturer for their manufacturing plants, wholesaler for selling to retailer, retailers for selling to ultimate consumer, exporter for selling to foreign countries etc. Depending upon the policy of the organisation and conditions in the market, the organisation can exercise control over the market. If the organisation would like to have a balanced sales, it can think of dividing the market into segments. Aggressive sales activity can be taken up in one market and the controlled supply can be made to another market. Thus the market element can be controlled.

5. ***Supplies:*** Even regarding supplier, the organisation can think of availing the required material or labour according to its manufacturing programme. It can adopt such a purchase policy which gives bargaining power to the organisation. The supplies can thus be controlled.

6. ***Market Intermediaries:*** Depending upon the sales policy of the organisation, market intermediaries can also be controlled. Market intermediaries here refer to the distributors. The size of production and supply will determine the channel choice. The organisation can decide whether it should reach the consumers directly on through wholesalers and retailers. Thus, it is also a controllable element.

7. ***Employees:*** Employees of an organisation, consisting of managers, executives, supervisors, etc., can be controlled to a great extent. Employees' loyalty, sincerity, productivity and these attitude towards their job and the organisation and the behaviour can he controlled by the organisation by following sound and employees-oriented personnel policies.

INDIAN MARKETING ENVIRONMENT

Advanced countries of the world have given importance for the development of marketing activities. This has contributed fairly for the industrial growth. But in India, marketing activity of the business houses are gaining momentum only recently. India being an agri-oriented economy, people still live mainly on agriculture. G.N.P. and per capita income of the people have not grown to the expected level not grown to the expected level in the past fifty years. In view of the low income of the people and excessive dependence on agriculture, markets have not properly developed only after the introduction of New Economic Policy in 1991, marketing activities in the country are taking a new shape.

Indian economy is undergoing a vast economic change through five-year plans. In spite of the various difficulties experienced during plan periods, remarkable progress has been made in the agricultural front. Industrial growth is only 5.5% on an average. In the last decade of twentieth century consumer goods industries have come up noticeably. Service sector has gained momentum. Urban market is developing and rural market is also growing. Consumer goods have entered the rural markets in a big way. It is essential here to identify the basic problems faced by the country which are relevant to the marketing. The analysis of these problems will indicate the strength and growth of Indian markets.

Problems

Indian corporate enterprisers and marketers are confronted with many problems. They are as follows:

1. ***Over Population:*** India is experiencing unprecedented growth of population. This has caused 'Scarcity' of goods and services. Production is not keeping pace with consumption. Low production and increased consumption have caused increase in price of goods and services and several goods are beyond the reach of the common man due to low purchasing power.

2. ***Low production :*** Low production has caused the concentration of production and distribution in few hands. This monopoly power has resulted in monopoly pricing. high pricing policy of monopoly producers had ignored the interest of consumers and consumers are crushed under the thumb impression of monopolists. This only has encouraged profiteering and speculative activities in essential goods sector. This is a major problem to be tackled.

3. ***Capital Formation:*** All the developed economies have identified and understood that if at all the economy has to grow, there should be the growth of capital goods sector. This sector, if it attains importance. lays a solid base for the formation of capital. Hence, the importance is given for the growth of capital goods industries. But in India, although the foundation is laid for the growth of capital goods industries, it is not strengthened and on the other hand 'Consumption goods' industries are assuming importance, retarding the capital formation. This is another problem to be looked into from the stand point of developing good market economy. However after the introduction of N.E.P. in 1991, the position is improving.

4. ***Effective Distribution System:*** Non-availability of effective distribution system is another problem traced by Indian economy. We have observed that there is low production in the economy. Even this little production is not in a position to reach all people, only the urban class and powerful rural class are able to command major portion of the production and very little reaches the masses. This ineffective, narrow distribution system has caused imbalance in the economy. Lengthy distribution channel and more middlemen in the channel have contributed for the increase in distribution cost and

ultimately these factors have an impact in the final price by the consumer.

*5. **Consumption Pattern:*** The consumption pattern of the people in India is not so congenial or favourable for the growth of the economy. When more stress is on consumption rather than on the national needs, economy will experience a slow growth. As stated earlier, the government and planners should allocate the resources of the country in such a manner that it contributes for the growth of the economy and results in capital formation. Demonstration effect (more consumption of goods reduces savings and investment) will have an adverse effect on capital formation. Thus, another problem to be tackled relevant to marketing is to allocate more resources for capital growth industries and reduce consumption expenditure. Service sector has to be encouraged.

*6. **These Problems are Discussed in the Following Paragraphs:*** Noticeable feature in our country is that there is excess demand for many products. The products are sold with little sales promotion effort. Advertising is informative rather than persuasive. In India, market being a "seller's market" manufacturing organizations are worried about production rather than marketing. Hence, little thinking on marketing management. India is still in the process of industrialisation. Management is yet to be professionalised. Trading practices are not in tune with the needs of the society. Middlemen have occupied key position in market activity. There is an universal prejudice against them. Marketing concept has not been properly applied. A country is underdeveloped, because marketing has been neglected. Peter Drucker argues that "Marketing might by itself go far toward changing the entire economic tone of the existing system without any change in methods of production, distribution of population or of income." Thus, the increase in size of the market facilitates economic growth. Narrowness of the market is an impediment to economic growth. Effective demand for the products and services can be created by widening the market and its activities. Marketing can bring social and economic changes in developing countries. India, is no excuse to this situation.

Marketing in India has not yet attained importance. Indian economy is undergoing a vast economic change through five year plans. In spite of the various difficulties experienced at a different stages of planning, good progress has been made in many fronts in the last thirty five years. Growth is noticeable in many sectors. There has been considerable increase in the production of industrial and consumer goods. This change has helped the growth of markets in India only in certain segments. Urban market is developing and the new products have to reach the rural markets yet. A study reveals that despite the increase in production of goods and services, nearly fifty per cent of the disposable income of the people is being spent on food items. Expenditure on consumer durables is slowly increasing.

The increase in production of goods and services has resulted in the increase of per capita income of the individuals in our country Added to this, the literacy level is increasing. These have contributed for the increase in standard of living and consumer sophistication. Further, the idle capacity in many of our basic and heavy industries have shown the need for the development of consumer goods industries. A beginning is already there in this direction. Many consumer products have entered the markets. An element of sophistication is also inducted in consumer products. But the marketing activity needs to be developed on scientific lines. The attitude towards marketing has to be changed. The marketing concept should be considered as something more than the business function. Marketing decisions should be based on sound knowledge of marketing situation. Market analysis and research should take place on scientific lines to provide better market information. Adequate market planning and sales promotion efforts are required to dig the market. Local problems in different market segments should be identified to adopt a sound distribution channel which reduces the cost of operation.

Marketing strategy is yet to be developed for each of the product produced in India. Effective strategy can be developed on the basis of market information and market analysis. Existing resources should be properly managed. It is marketing strategy relating to product mix, distribution, price and promotion elements that accounts for the success of the marketing activity and not the product. Hence, there is a need for developing the effective marketing strategy.

Proper implementation of some of the new concepts and techniques of marketing will make the marketing activity more effective, planned and meaningful. This also reduces the selling and distribution costs. Since India is a rural economy, rural marketing activities should also be taken note of while considering the development of Indian marketing. Tele marketing, network marketing are some of the new concepts, which are making headway in Indian marketing system.

RURAL MARKETING

In spite of the rural exodus, nearly seventy per cent of our population still live in rural parts. Half of our national income is generated in rural area. As a result of "Green Revolution" noticeable changes have taken place in rural sector. Application of modern method of agriculture have brought about a genuine change in the agricultural sector, many agro-based industries have been established due to change in agricultural environment. Many agricultural products have been used as direct raw material in several industries. Many marketers are now aware of the vast potential that lies in rural India. This potential has been looked as an immediate opportunity and not as a remote promise.

The per capita income of rural people has increased and there is considerable change in the consumption expenditure of this sector. Besides spending on food and farm inputs, substantial expenditure is made on modern consumer durables like, cycle, radio, kitchen appliances and such other modern house hold articles.

Thus, the farmer of today is not conservative in his attitude and has developed a flair for comfortable living. He has evinced interest in improving his material well being. This has provided a rare opportunity for Indian business men to explore the markets for their products in rural areas.

Expanding the markets in rural areas, stimulate production in many industries and it is necessary also for the economic growth of the country. Increased marketing activity in rural areas will bring new life to the rural people and help them to channelise their savings in right direction. But the 'expansion of rural market is a tough task. Majority of the villages in the country have not been provided with good transport and communication system. There is a difference between urban markets and rural markets. The taste and preference of village people are governed by tradition and social pressures. The marketer should have innovative character to educate the rural mass regarding the new products. Let us analyse the problems of raw marketing.

RURAL MARKET-BRIEF PROFILE

The Indian rural market has two dimensions :

(1) The attitude of rural consumer

(2) The nature of rural demand.

1. Attitude of Rural Consumer

The attitude of rural consumer can be ascertained from the following profile of rural consumer. The profile consists of :

(a) Size of rural consumer.

(b) Location pattern.

(c) Age wise distribution of rural consumer.

(d) Literacy level.

(e) Rural income.

(f) Saving habit of rural consumer.

(a) Size : The following census figure give the size of rural population and potentiality of rural market.

Table showing Population Distribution

Population	*1971*		*1981*		*1991*		*2001*	
	Population in crore	*% of Total*	*Population in crore*	*% of Total*	*Population in crore*	*% of Total*	*Population in crore*	*Expected % of Total*
Rural	44	80	50	76	63	74	70	70
Urban	11	20	16	24	21	26	30	30
Total	55	100	66	100	84	100	100	100

The population distribution as shown in the above table will clearly indicate the vast scope available for rural marketing. According to the above table 70 per cent of people live in rural parts even today.

(b) Location Pattern : Seventy percent of total population of the country live in 5;76,000 villages. Only about ten percent plus villages (around 6000 to 7000) have a population of more than 5000 and the rest have a population ranging from 500 to 5000.

(c) Age-wise Distribution : Age-wise distribution of rural population is as follows :

0-15	years	about	35%
15-60	years	about	60%
60	and above	about	05%

This distribution shows that disposable income lies in 60% of the people who fall between 15 and 60 years. They are the major earners. Teenagers and adults control the major purchasing power.

(d) Literacy Position : The literacy level in rural areas is increasing. The following table will show the position.

Literacy	*All India Level*
Year	*Rate*
1971	29.5%
1981	36.2%
1991	42.9%
2001 Expected	60%
URBAN	61.8% (1991)
RURAL	36.4% (1991)

The above table shows that literacy level in rural areas is on the increase. This will change the living pattern of rural people and thus create new markets in rural areas.

(e) Rural Income : The income pattern of rural people in India is as follows :

Source	*% to total*
Agriculture	60
Agri wages	18
Business and craft	8
Non-Agri wages	6
Officials – salary	2
Others	6/100

This table indicates that major portion of income lies with agriculturists and agricultural labourers. This means that prosperity in agriculture will increase the income of rural people and hence their purchasing power increases. Again this provides scope for greater marketing activities.

(f) Savings: Because of fast growth of banking sector in rural India, savings habit of the rural people has considerably increased. It is estimated that nearly 70 percent of the rural income earners save a portion of their earnings. This indicates a big potentiality for consumer durable goods market.

2. Rural Demand Profile

The demand for non-food products in rural areas has increased considerably over the past 50 years. It was in the range of Rs. 5,000 crore in 1970 and it has touched around Rs. 30,000 crores now.

The structure of demand has also changed considerably. A good number of new consumer items are added to the rural consumer list. The new consumer goods list consists of shampoos, premium toilet soaps, two-wheeler automobiles, television sets, tooth paste, ready made garments, wrist watches, woollen cloth, various other types of personal care products, books and stationery, packaged food stuff, high tech music instruments, modern communication systems, computers etc. Besides these new products, well established products like, irrigation and agricultural machinery, fertilizers, pesticides, radios, beverages including alcohol, medicine and hygiene products, textiles, detergents, ornaments and jewellery, cycles etc. also add to the demand for rural products.

Following products have greater demand in rural markets compared to urban markets.

Product	*Share of rural market*
Bicycles	80%
Shaving blades	67%
Books & stationery	55%
Woollen clothing	53%
Consumer durables	53%
Silk clothing	53%

The following products have a higher growth rate compared to urban markets :

- — Detergent powder.
- — Soap cake/bar.
- — Packed tea.
- — Basic drugs like analgestic tablet.

This brief information gives a profile of rural demand. It is observed from the above that it is fast expanding.

The FEATURES of rural market are :

- — Low standard of living.
- — Scattered market.
- — Demand in rural market is linked to agricultural production every year.
- — Multi-language, multi-culture character of rural India contributed for the varied consumption habit.
- — Slow change in outlook due to increase in literacy level.
- — Steady and fast change growth rate in rural markets.

The rural markets are growing in size, because of the following factors.

- — Change in government policies.
- — Green Revolution.
- — Growing awareness.
- — Growing literacy.
- — New Employment opportunities.
- — Marketing efforts of big multi-national companies (MNCs) like Hindustan Lever, Bajaj Auto, Godrej Soaps, BPL Philips in rural markets.

Problems

Rural markets are facing several problems :

- Problems in physical distribution. The problem areas are transportation, warehousing and communication.
- Problems in channel management which includes
  - Need for multiple channels of distribution to reduce cost.
  - Limited scope for manufacturer's own outlets.
  - Heavy dependence on middlemen.
  - Poor viability of retail outlets, because low purchasing power of people and scattered living.
  - Poor financial services.
- Problems of sales force who do not advise to local environment due to language problem, facility etc.
- Problems of promotion and marketing communication which includes, low level of education of rural mass, social backwardness of rural people, initial opposition of rural people to new products like packed food, premium soaps etc., linguistic diversity and non-reaching of rural mass through media (only 25-30% rural people are covered by newspapers, magazines, TVs and other media.)

Solutions

The problems of rural market stated above can be solved in the following manner.

Physical Distribution

The physical distribution problem can be solved by adopting the combination of different modes of transport. Rail road transport combination works out well for rural markets. While making these changes cost of transport should be minimised. Water transport should be developed in coastal areas.

The manufacturers can think of direct delivery of products to rural retailers through their delivery vans.

The stockists can also think of their own delivery system by running their own delivery vans.

Another mode that can be thought of is that two or three companies which are operating in an area can think of *SYNDICATED TRANSPORT* for delivery. This reduces the cost of distribution or even the retailers or stockists of the area can jointly think of common transport *(SYNDICATE)* system to reduce distribution cost.

Warehousing problems can be solved by central and state warehousing corporations by constructing small type warehouses and cold storages. Even the companies can provide storage facilities if they have a larger market for their products.

Communication problem can be solved by extending facilities like STD, ISD to rural areas. The recent Telecom Policy of Government of India has extended greater telecommunication facility to rural areas in a big way.

Channel Management

Retailing problem in rural areas can be solved by :

- Training the retailers in customer service by the companies and government.
- Developing retail outlet ownership by companies and government like HOPCOM.
- Encouraging co-operative sector to take to retailing in a big way.

Sales Force

The sales force working in the field of local language. This problem can be solved by appointing local people having communication skill. They have to be trained in retail marketing and they may be motivated to develop flair in rural marketing programmes. Talented salesmen have to be richly rewarded. They should also be persuaded to adjust to the local culture.

Promotion

The promotion problem of rural marketing can be solved by taping the following:

- Media including fixing hoardings in prime places, van publicity, village melas, puppet shows, lottery tickets, drama, mike announcements, etc.

Interaction with rural people exploring the product profile. This is a direct promotion activity. Important forms are group meetings with prospects, opening information centres and impart education on products, Live demonstrations, conducting competitions in schools, sponsoring local sports and cultural events.

OTHER CHALLENGES AND OPPORTUNITIES

When we speak of challenges, different economics have different marketing challenges. Developed economy has the challenges of maintaining the developed market. Developing economies have the challenges of developing the markets by innovations and expansions. In a country like India, where the economy is growth oriented, the available natural and economic resources are to be exploited in order to provide comfortable living for the people, In this context marketing plays a key role. New markets have to be developed to expand the market share for a product. The marketing manager will be the prime mover of these activities. He has several challenges before him. He has to explore the opportunities and seize them at the right time. Some of these challenges are discussed in the following paragraphs.

Product Innovation

Modern marketing activity is mainly concerned with the expansion of market share for the existing product at the expense of competitors or in an expanding market. But in developing countries the activity should be different. The growth oriented economy has the challenge of innovating new products and creating new markets for them. It is only the additional output and service in a developing economy that can bring social justice. Innovating a product is not an easy task. Research and development wing of a manufacturing organisation should put in its sincere efforts to develop a product. It is a team effort. The production wing, marketing technical wing, and market research wing should work together to develop a new product. But marketing manager is a key person who gives an idea about the new product. Thus, one of the challenges in India is to innovate "New Product" to increase the marketing activity. Product innovation has a multiplier effect. Take for example a diesel car. Prior to the introduction of this car, petrol cars were in less demand because of high price. The middle income group are now thinking in terms of possessing a diesel car as the cost of maintenance is cheap compared to petrol cars. Another effect of this is that there is saving in petrol consumption which can be used for a product in some other industry. Several products are being innovated now and they are bringing more facilities to the common man. All this has been possible due to the marketing effort of the organisations. Thus, marketing has been a stimulant to economic growth.

Gainful Use of Production Capacity

Like any other developing economy, even in India industries are being developed under tariff protection. The main object is to see that limited resources are not wastefully applied. In this context, it is advisable to develop such products which can develop markets easily rather than spending excessively on capital intensive industrial goods industries. It has been the experience in our country that many capital goods industries have idle capacities and the investment is being wasted in such industries. Hence, some consumer products have to be developed and produced to use this idle capacity. Thus, another challenge is to create intelligent markets which can take up seasonal over-production on one hand and on the other enable production capacities to be gainfully employed in off seasons.

Legislative Controls

In a mixed economy like ours, several legislative controls come in the way of free use of marketing tools. This has placed the marketing manager in a predicament. Price controls on number of commodities has made him to constantly shift cost-benefit equations, this has eclipsed the true worth of marketing tool. As the government and private sectors will be operating side by side, government controls the share of the market more than what it could contain. This has posed a challenge to the marketing managers of private sector. They have to operate within these constraints and concentrate more on cost effectiveness of the marketing operation rather than keeping the customer happy.

Understanding the Production Process

Another challenge before the marketing managers is to utilise the licensed capacities to the maximum. The production programme of the organisation should be fully supported by the marketing division to find full market for the product. They have to understand the undertone of the market and give a feedback to the production manager regarding the product quality. The production process should be fully understood by the marketers and they can suggest a change in the quality and size of the product, utilising the existing production capacity to the core. This adds value to the products and a range of products can be released to the market which reduces the cost of production and market operation. This should be a continuous exercise of the marketing management to keep the production capacity engaged fully. It will also help the management to increase the production capacity. The product will also be updated.

Product Handling

In India, money and time is wasted by industries in product handling. From the point of production to the point of consumption, there is waste of time in product handling. Loading and unloading of the product in transport vehicles take much time. Number of men involved in this operation is high. Cost accounting is not practiced in a considerable way in marketing operations. The time and money involved in product handling operations can be saved if the marketers give proper attention to the designing of simple handling gadgets and equipment linked to specific purposes, creation of pallet tools etc. When once the consciousness is there in this direction the concerted action begins and the product handling can be simplified.

Other Challenges

There are other challenges before the marketing management. Co-ordination between cost accounting and financial accounting is one such challenge. Inventory holding costs at all levels should be reduced. Skill has to be adopted in demand forecasting.

Finally, the marketing management should avail of the existing opportunities and modernise the traditional Indian society. This can happen by using the resources to the maximum for the benefit of as many people as possible. Specific techniques have to be adopted in doing so. In the process of developing mass market, the professional marketers should not forget the concept of "Quality Control." The word "Quality" should not be simply used in seminars and conferences. It should be practiced at shop floor and market place. We have the potentiality of producing quality products comparable to international standards. But professional marketing management has taken Indian consumers for granted and produce inferior products. They stick on to the doctrine "That anything will go in the Indian market." But this will sound the death-knell of modern marketing. By sheer will power and dedicated managerial action, the attitude of marketers can be changed. Establishing the concept of quality in Indian marketing is obvious and perhaps this is the biggest challenge before the marketers. The opportunity of creating mass market and product development to international standards, can be seized, if only the professional marketers properly interact with financial and products management. Indian market is yet a small market with high potential. Indian marketer should not merely satisfy the immediate wants of the consumer, but also should stimulate new wants. The marketing man should revolutionise the thinking of our people by innovating new products.

POINTS TO REMEMBER

1. Marketing environment is classified into *(a)* Macro Environment (External uncontrollable factor) *(b)* Micro Environment (Internal controllable factor)

Macro Environment

(a) Demography.
(b) Economic environment.
(c) Social and cultural environment.
(d) Political and legal forces.
(e) Science and technology.
(f) Competition.
(g) Ecology (nature).

- (h) International environment.
- (i) Customer demand.

Micro Environment

- (a) Organisation.
- (b) Corporate resources.
- (c) Marketing mix.
- (d) Market.
- (e) Supplies.
- (f) Market intermediaries.
- (g) Employees.

2. **Indian Environment—Problems Relevant to the Marketing**
    - (a) Scarcity of goods and services.
    - (b) Monopoly and monopoly pricing.
    - (c) Inadequate growth of capital goods industries.
    - (d) Lack of effective distribution system.
    - (e) Consumption pattern is not congenial for the growth of the economy.
3. **Rural Marketing**
    Features—Need to adopt suitable marketing strategy for rural marketing
4. **Challenges and Opportunities to Indian Marketing**
    - (a) Product innovation.
    - (b) Gainful use of production capacity.
    - (c) Legislative controls.
    - (d) Understanding the production process.
    - (e) Product handling.

STUDY QUESTIONS

PART - A (16 marks)

(2 marks questions — answer in four lines)

1. What is marketing environment?
2. Name the uncontrollable factors of marketing environment.
3. Name the controllable factors of marketing environment.
4. What is company's micro-environment?
5. What is macro-environment? ***(B.U. Apr. '99)***
6. What is system approach? ***(B.U. Apr. '99)***

PART - B (24 marks)

(8 marks questions — answer in 30 lines)

1. Briefly analyse the factors involved industries marketing environment.
2. State and analyse the external uncontrollable factors of marketing environment.
3. State and analyse the internal controllable factors of marketing environments.
4. Briefly analyse the marketing opportunities in Indian environment.
5. Analyse the features of rural marketing.

6. Analyse the impact of the "demography" on marketing management.
7. State the legal frame work in India in respect of its marketing environment. ***(B.U. Apr. '99)***

PART-C (60 marks)

(15 marks question — answer in three pages)

1. Briefly explain the controllable and uncontrollable forces of market environment.
2. Briefly explain the challenges and opportunities that are posed to Indian marketers.
3. Why is marketing behaviour affected by the marketing environment? Discuss.
4. Discuss the relative importance of all environmental forces affecting the marketing system of a firm.
5. "A firm is an open, adaptive system living in its own environment and strives to accomplish certain objectives through integration and co-ordination." Explain.

4

PRODUCT PLANNING

Product Concept — Product Plan or Strategy — Product Life Cycle — New Product Ideas — Product Position

PRODUCT CONCEPT

The product is the most tangible and important single component of the marketing programme. The product policy and strategy is the cornerstone of a marketing mix. Without a product, there is nothing to distribute, nothing to promote, nothing to price. If the product fails to satisfy consumer demand, no additional cost on any of the other ingredients of the marketing mix will improve the product performance in the market place.

To the marketer products are the building blocks of a marketing plan. Good products are key to market success. Product decisions are taken first by the marketers and these decisions are central to all other marketing decisions such as price, promotion and distribution. Product is the vehicle by which a company provides consumer satisfaction. It is the engine that pulls the rest of the marketing programme.

Products fill in the needs of society. They represent a bundle of expectations to consumers and society. The product concept has three dimensions:

1. Managerial Dimension: It covers the core specifications or physical attributes, related services, brand, package, product life cycle, and product planning and development. As basis to planning, product is second only to market and marketing research. The product offering must balance with consumer–citizen needs and desires. Product planning and development can assure normal rate of return on investment and continuous growth of the enterprise.

2. Consumer Dimension: To .the consumer a product is actually a group of symbols or meanings. People buy things not only for what they can do, but also for what they mean. Each symbol communicates a certain information. A product conveys a message indicating a bundle of expectations to a buyer. Consumer's perception of a product is critical to its success or failure. A relevant product is one that is perceived by the consumer as per intentions of the marketer. Once a product is bought by a consumer and his evaluation, *i.e.*, post-purchase experience is favourable, marketers can have repeat orders, consumer accepts products as bundles of satisfactions rather than as physical things.

3. Societal Dimension: To the society salutary products and desirable products are always welcome as they fulfil the expectations of social welfare and social interests. Salutary products yield long-run advantages but may not have immediate appeal. Desirable products offer both benefits, immediate satisfaction and long-run consumer welfare. Society dislikes the production or merely pleasing products which only give immediate satisfaction but which sacrifice social interests in the long run. Marketers have to fulfil the following social responsibilities while offering the products to consumer.

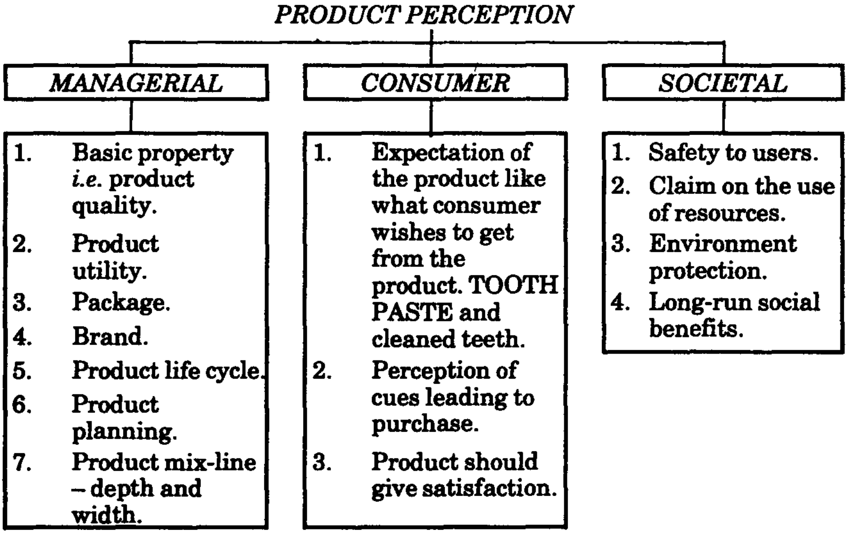


Fig. 4.1 Different Dimensions of Product

(1) conservation and best use of resources, (2) safety to users, (3) long-run satisfaction of consumers, (4) quality of life, concern for better environment, (5) fulfilment of government regulations relating to composition, packaging, promotion and pricing of many products.

WHAT IS A PRODUCT?
(To the Consumer)

The product is a bundle of all kinds of satisfaction of both material and non-material kinds, ranging from economic utilities to satisfaction of a social psychological nature.

A product supplies two kinds of utility: (1) economic utility, (2) supplementary utility in the form of social-psychologic benefits.

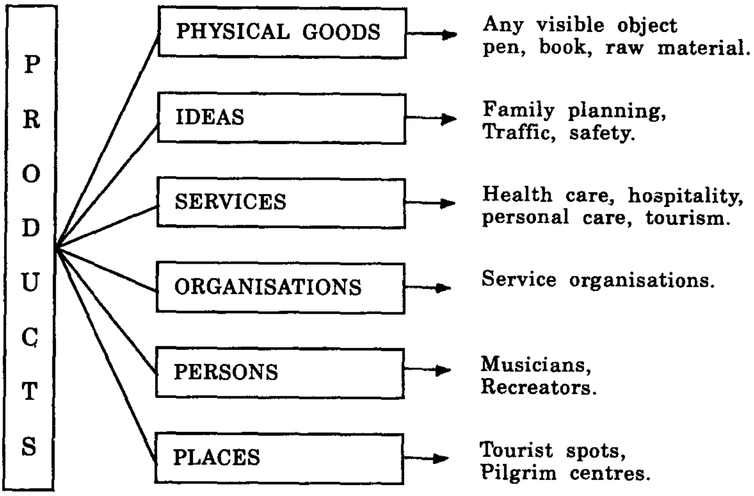


Fig. 4.2 Product Concept.

The product may be a good, a service, a good plus service, or just an idea. A product is all things offered to a market. Those things include physical objects, design, brand, package, label, price, services, supportive literature, amenities and satisfaction not only from physical product and services offered but also from ideas, personalities and organisations. In short, a product is the sum total of physical, economic, social and psychological benefits. Marketers must define their market in terms of product functions — what the customer *expects* from the product.

"Product may be anything that can be offered to a market to satisfy a want or need." — *Philip Kotler*

Selling Points of a Product: (1) physical attributes, (2) utilities, (3) brand, package and label, (4) design, colour, size, shape, style, finish, beauty, *etc.*, (5) price, (6) services, (7) company image, (8) safety users. Buyers are not interested in the composition of a product. "They are concerned only with what the product *does,* what the product *means to them* and to what extent it satisfies their social and psychological needs. The needs and expectations are also changing.

A Manufacturer of Cosmetic Products Said: "In the factory we make mascara and skin cleaner, but in the store we sell hope and beauty." Toothpaste may be a product to the producer to the consumer it means hopes and expectations: Whiter and cleaner teeth, pleasant taste, fewer cavities, stronger gums and sweet smelling breath. The consumer buys these hopes and expectations, and not the toothpaste. These expectations of benefits are called market offerings and they act as the selling points of a product. If the performance of the product is on par with expectations, the customer will be satisfied and the seller's mission is fulfilled.

What marketers are selling in a product is the capacity and competence of the product to offer expected use, performance and satisfaction. The concept of product as a bundle of utilities, satisfaction and benefits need not be over-stressed.

PRODUCT PLAN OR STRATEGY

A product strategy is a company plan for marketing its products. We lay down product objectives. We develop a product design to achieve the set objectives. We have a product plan or strategy that involves a number of issues to be resolved: (1) product line, (2) product mix, (3) packaging, (4) labelling, (5) branding, (6) service after sale, (7) organising for product planning and development, (8) product research and improvements.

Product Line: What products or satisfactions should we sell? Product line is a group of products that are related either because they satisfy similar needs of different market segments, or because they satisfy different but related needs of a given market segment. A range of toilet soaps is a product line as it satisfies one need for different market segments. Similarly, a group of cosmetics is a product line as it satisfies different but inter-related needs of one market segment, say, rich urban women.

Product Mix: It is the entire range or products of a company for sale. Product mix need not consist of related products. For example, the product mix of Hindustan Machine Tools includes a diverse range of products such as watches, machine tools, tractors, printing machinery and electric lamps.

The product mix of a company has three main characteristics: (1) width, (2) depth, and (3) consistency. Width of the product mix depends upon the number of product groups or product lines found within the company. Depth depends upon the number of product items within each product line. Consistency of the product mix refers to the question whether or not the products have production affinity, marketing affinity or research affinity. General Electric Corporation of the U.S.A. has over 2 1/2 lakhs of products. But there is an overall consistency as most products involve electricity power.

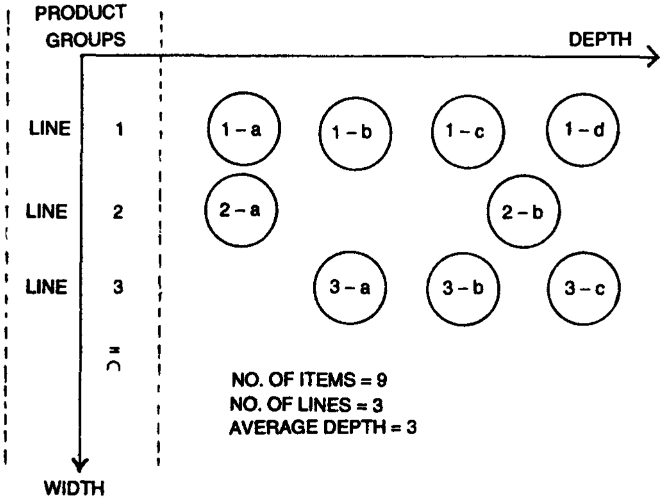


Fig. 4.3 Width and Depth of a Product Mix.

The Social Aspect of New Product Opportunities

Kolter has suggested a way of classification. There are *pleasing products, e.g.,* cigarettes which give high immediate satisfaction no doubt, but they do harm consumer interest in the long-run.

There are *deficient products* which have neither immediate appeal nor long-run benefits. Firms are not interested in such products as there is no chance to make any profit at all.

There are *salutary products, e.g.,* detergents with low phosphates. They have long-run advantages but have no immediate appeal to consumers. Hence, firms are not primarily interested in such products. But they can be taken as a challenge and they can be made initially attractive without losing long-run consumer benefits.

There are *desirable products* which have a happy combination of high immediate satisfaction and high long-run consumer welfare.

Tasty, nutritious, ready-made food products are the examples of such desirable products. Socially responsible firms would attempt to find opportunities to produce desirable products.

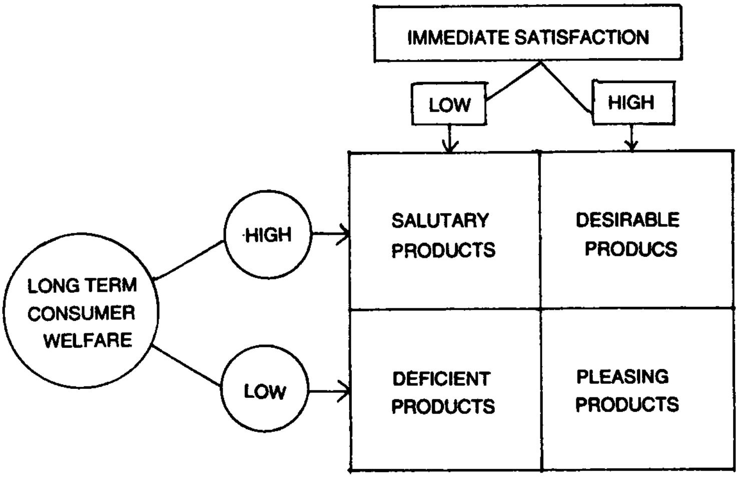


Fig. 4.4 Classification of New Products

Pleasing products are less costly than desirable products and consumers may demand pleasing products. Some rival firms may be ready to offer such pleasing products. Socially responsible firms would try to provide some long–run benefit to pleasing products without reducing their immediate satisfaction.

Firms have immense opportunities in developing desirable products such as new foods, new textiles, new appliances, *etc.,* they assure initial sales and also sustain profits. Under the socially responsible marketing approach desirable products are at a premium.

Importance of Sound Product

There are two essentials of successful marketing: (1) products, and (2) markets. If marketing can bring together products and markets in such a way that products and consumer demand are perfectly correlated, there is no reason why marketing cannot be successful. Both are equally important. In fact product and market are expected to be the two sides of the same blade, viz., marketing. Product is expected to satisfy all the needs and desires of a customer.

If the product is sound and easily acceptable to the market, if it satisfies reseller's needs and consumer preferences and is carefully fitted to the needs and desires of the customers, sales success is assured. In essence, the right product is a great stimulus to sales. A right product is bound to reduce considerably the problems of pricing, promotion and distribution. It need not have aggressive advertising and high pressure salesmanship. It may not demand extraordinary sales promotion gimmicks. Hence, product superiority in want-satisfaction can carry greatest selling load in our marketing mix, *e.g.*, Polaroid instant camera, and Xerox for instant reproduction.

Importance of Product Analysis and Research

Marketing product analysis and research is a study of consumer preferences and habits as well as dealer preferences and habits relating to a given product. Such a study can determine the extent to which the product should be altered, modified or adapted to meet exactly the existing demands of the customers and resellers. The study can also enable us to device a new product exactly needed in the market.

Intelligent market analysis and research can dictate the taste, colour, size shape, style, performance and such other specific features on the basis of customer whims, fancies and preferences. On the basis of such reliable information about customer demand, a manufacturer can bring out a tailor-made product having all the elements in exact tune with the needs, wants and expectations of customers.

PRODUCT LIFE CYCLE

The product life cycle concept derives from the fact that a product's sales volume and sales revenue follow a typical pattern of five-phase cycle. The life cycle is a fact of existence for every product. It is similar to the human life cycle. The length of the life cycle, the duration of each phase and the shape of the curve vary widely for different products. But in every instance, obsolescence or decay eventually occurs when the need disappears or a better, cheaper and convenient product may suit the same need or a competitive product due to superior marketing strategy suddenly gains a decisive advantage.

The product life cycle should be preferably termed as product market life cycle as it is related to a given particular market. For example an old product (in the market of the U.S.A.) will have an new life cycle when it is introduced into a foreign market, say, in India. The product life cycle concept indicates that the product is born or introduced, grows, attains maturity and the point of saturation in that market and then sooner or later it is bound to enter its declining stage, *i.e.*, decay in its sales (history). This gives the sales revenue and profit margin history of a product over a time frame.

1. Introduction: In the early stage when the product is introduced in a market, sales revenue begins to grow but the rate or growth is very slow, profit is not be there as we have low sales volume, large production and distribution. We may require heavy advertising and sales promotion. Products are bought cautiously on a trial basis. Weaknesses may be considerable. In this stage product development and design are considered critical.

2. Growth: It is the period during which the product is accepted by consumers and the traders. During the growth stage, the rate of increase of sales turnover is very rapid. Profits also increase at an accelerated rate. In spite of competition, we may have rising sales and profits. The firm gives top priority to sales volume and quality maintenance may have secondary preference. For marketing success, manufacturing and distribution efficiency are vital factors. In mathematical terms, the end of the growth period is at the inflection point on the sales curve. In this stage effective distribution and advertising are considered as key factors. Word of mouth advertising leads to more new users. Repeat orders are secured.

Note:

1. Introduction : Sales are starting.
2. Growth : Rising sales at increasing rate.
3. Maturity : Rising sales at decreasing rate.
4. Saturation : Stable sales.
5. Decline : Falling sales.

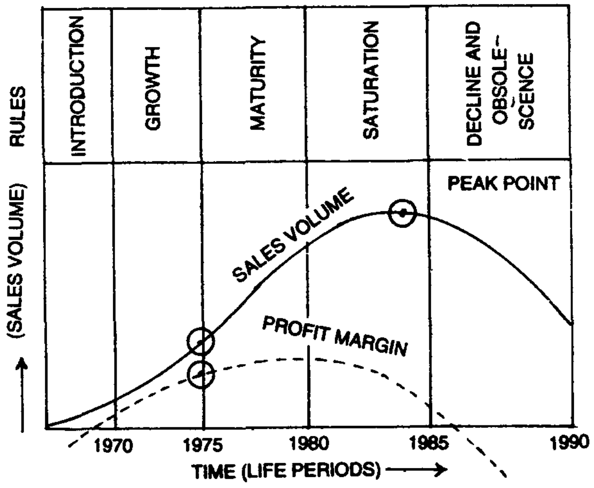


Fig. 4.5 The Product Life Cycle Concept

3. ***Maturity:*** During this stage keen competition brings pressure on prices. Increasing marketing expenditure and falling prices (in the battle of market share) will reduce profits. Additional expenditure is involved in product modification and improvement or broadening the product line. Marketers have to adopt measurers to stimulate demand and face competition through additional advertising and sales promotion. Overall marketing effectiveness becomes the key factor in the stage of maturity.

4. ***Saturation:*** The saturation point occurs in the market when all potential buyers are using the product and we have only replacement sales. Consumption achieves a constant rate and the marketers have to concentrate exclusively on a fight for market share (with higher marketing expenses). Prices may fall rapidly and profit margins may become small unless the firm makes substantial improvements and realizes cost economies.

5. ***Decline Stage:*** Once the peak or saturation point is reached, product inevitably enters the declining stage and becomes obsolete. It may be gradually displaced by some new innovation. Sales drops severely, competition dwindles, and even then the product cannot stand in the market. It may be priced out of market by other new innovations. At this stage price becomes the primary weapon of competition, and we have to considerably reduce expenditure on advertising and sales promotion. Cost control becomes the key to generate profits.

In real life, many products do not follow the life cycle curve given above. Time interval for each stage varies widely from product to product. For example salt remains in maturity stage for ever. Table radios have now moved into declining stage after achieving maturity and saturation. Marketers can alter the product life cycle primarily through product improvement (alterations in product offering) and then changes in the rest of the marketing mix. New products are the real solutions to the problems of maturity and decline.

Product Life Cycle and Marketing Strategy: The most essential feature of the product life cycle is the difference between the two curves (sales curve and profit curve). Long before sales decrease, profit margins *usually* decrease. Hence, marketer must generate a continuous stream of new products in order to maintain market position, the company image and try to hold profitability at desired levels. Similarly, marketers must consider the changing relationship between sales revenue and profitability in the allocation of marketing and other resources among parts of the product line. Product life cycle governs strategic marketing planning at all levels. It is involved not only in product planning and development but also in pricing, promotion and distribution policies.

Diffusion (Adoption) of Innovations

In a sense the diffusion (consumer adoption) process as developed by E.M. Rogers is the same as the product life cycle. However, the diffusion process looks at what is happening in the market (buyer behaviour), whereas the product life cycle merely depicts the flows of revenues and profits to the business unit on account of the diffusion process. The diffusion process is described in the form of the normal distribution curve (the bell-shaped curve).

The life cycle concept derives its logical base from the diffusion process. Adoption and diffusion of any new product (innovation) slowly develops because of resistance to change and the time taken for communication of the new innovation. When early adopters follow the lead given by innovators, adoption process gains momentum and grows rapidly. The peak point arrives when most of the potential buyers have tried the new product.

*1. **Innovators:*** They are the first two and a half per cent of the market. They are risk takers and act as forerunners. They are willing to take the risk in many respects. They show different life style and personality. They are young, educated, well-informed and richer consumers. They are very important to the success of the new product.

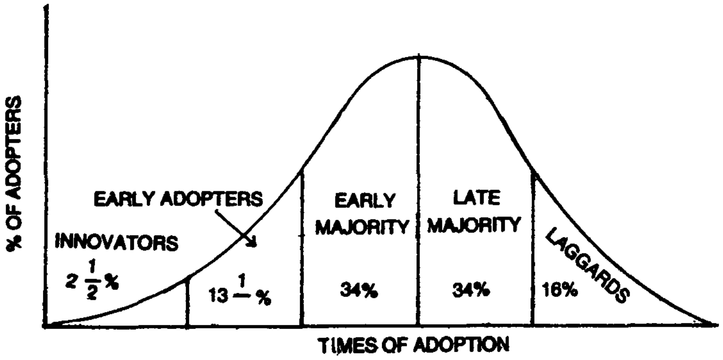


Fig. 4.6 The Diffusion Process

*2. **Early Adopters:*** The next thirteen and a half per cent using the products are early adopters. They are *the opinion leaders* and taste makers in their circle of connections and friends. They are also opinion leaders in the community. They are educated, rich and more successful than average. They are considerably exposed to information from all sources particularly from mass media.

*3. **Early Majority:*** The next 34 per cent are the early majority to adopt the new product, bringing the total adopters to 50 per cent. They are average people with regard to income, occupation, age, education. They make the innovation legitimate and it is no longer a luxury or a novelty. They do not hold leadership position. They form a bridge between the new and the old values of society. They are shrewd buyers and give more thought to themselves and their behaviour.

*4. **Late Majority:*** The next 34 per cent are the late majority buyers to adopt the innovation. They are older and less educated buyers. They have limited purchasing power. Hence, they are skeptical in their adoption of the new product. It is an indication that it is now a clear necessity. They buy the product only when public opinion clearly is in favour of the product. They depend more on the word of mouth and personal guidance by their reference groups. They are less exposed to mass media.

*5. **Laggards:*** It is the last category of buyers (16 per cent). They tend to be older, with less education, poorer and traditional in their outlook on life. Caution, conservation and price-consciousness characterise the laggards. They have little contact with mass media particularly newspapers. They rely only on radio, TV and reference groups. Rural buyers tend to exhibit the laggards.

Implications for Marketers

It is difficult to have five distinct marketing programmes — one for each class of adopter. Usually marketers develop two distinct marketing programmes: one for innovators and early adopters and the second for early and late majority and also laggards. The secret of getting a new product introduced in the market is to secure action from a small but significant innovative group to use it. This group must be quickly followed by a larger set of early adopters. Early adopters are approached through specialised media. Late adopters are approached through general appeal media. Marketers direct their marketing programmes, especially promotional activities, to opinion leaders and key influential persons in the diffusion process.

Marketing and Innovation

Innovation is purposeful, organised, risk-taking change introduced by a marketer in order to maximise economic opportunities.

Successful innovation is a necessary condition for effective marketing. 'Innovate or perish' is a current slogan which has rich meaning for business operating in an economy with customer-oriented marketing. An innovation is considered as a successful invention. An innovation is the act of developing a novel idea into a process must be feasible and must have commercial acceptability. A successful innovation passes through three stages: (1) the idea or invention, (2) the implementation of the idea, and (3) the market acceptance is the third stage and it is most critical to any successful innovation. A firm can control partially the first two stages. However, the acceptance decision is an external factor and it depends upon consumers and their reactions. Marketers rely on all modes of promotion or marketing communications to exert influence on consumer behaviour and induce the potential customers to adopt the innovation.

The Adoption Process

The adoption of an innovation demands planned management of change (overcoming the resistance to change). An adoption process is a process bringing about a change in buyer's attitudes, and perception. Consumer adoption process covers the steps that consumer usually goes through in determining the feasibility of buying new products: (1) Awareness, (2) Interest, (3) Evaluation or mental trial, (4) Trial (physical), (5) Adoption.

1. ***Awareness:*** A person learns about a new idea, product or practice. He has general information about it, *e.g.*, through advertisement. He has, however, limited knowledge about special qualities, usefulness, performance, *etc.*, regarding the innovation. He has mere knowledge of its existence.

2. ***Interest:*** He now develops an interest in the innovation. He demands more detailed information about the new product, its utility, its performance, and so on. He listens with interest radio or TV ads, reads press ads, and learns more about it from others, and is now inclined to actively seek the desired information from salespersons, opinion leaders, peers, friends, *etc.*

3. ***Evaluation:*** The accumulated information and evidences are weighted by the person in order to assess the basic soundness or worth of the innovation. He tries to reason through *pros* and *cons* the value of the new product to him and the extent to which it is good for him. In a sense, he conducts mental trial of the new product.

4. ***Trial:*** The person now is ready to put the change into practice. Competent personal assistance is necessary to put the innovation to use. A sample may be tried and large-scale use would depend upon the success of the small-scale experiment.

5. ***Adoption:*** It is the final stage in buying decision-making process. The person now decides to adopt the new idea, product or practice for *continued use.* If post-purchase experience is good, he becomes a repeat buyer and a talking advertisement of the innovation.

Product Innovation

The innovative attitude of a marketer is expressed in the watch word "innovate or die." Such an attitude must be an integral part of marketing concept. P. Drucker recognized the equal importance of innovative attitude and marketing concept. He said, "Because it is its purpose to create a customer, any business enterprise must have two and the only two basic functions: *marketing* and *innovation.* All growth industries have an important role for innovation in their marketing plans. Innovation alone assures growth and survival while customer orientation assures survival. The evolution of new products is a practical business function and it is described as a process of product management. The new product programme must be organized and controlled if it is to be effectively managed. The process of product planning and development is always adopted for product innovation. Product development is a general term covering the search for new products and new innovations as well as the improvement of existing products.

METHODS OF OBTAINING PRODUCTS

Internal Development	Licensing	Acquisition
Discovering and developing new products by the firm itself. Desirable means.	Securing right to produce the product from a patent holder. Contractual arrangement *e.g.*, Coca Cola	Buying the firm that developed or patented the product, Costly means.

Note:

1. Internal product innovation implies no payment of profits to inventor or developer.
2. Licensing obviates the possibility of internal discovery and may be inevitable or preferable, *e.g.*, complex products like electronics.
3. Acquisition is very costly but gives exclusive rights.

Planning and Development Strategy

Marketers have four alternative ways for growth in sales and profits; (1) market penetration, (2) market development, (3) product development, and (4) product diversification. The following figure shows how the firm may respond to market opportunities.

1. Market Penetration: It involves expansion of sales of existing products in existing markets by selling more to present customers or gaining new customers in existing markets. The firm can market its present products to existing markets (Cell A). This is done through a more aggressive marketing mix. Customers from rivals or potential buyers can also be attracted. Existing buyers may be induced to increase their rate of use. We may have temporary price cut to raise the volume of sales and penetrate the market.

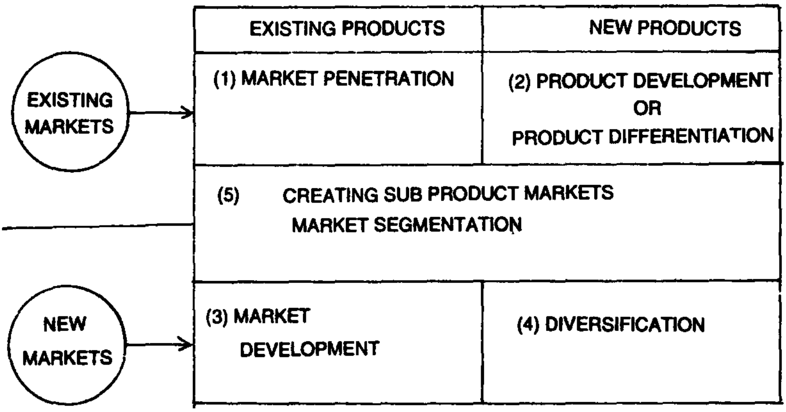


Fig. 4.7 Four Basic Types of Opportunities for Sales Growth

2. ***Market Development:*** In market development a present product is introduced to a new market or segment. Market development is the creation of new markets by discovering new applications for existing goods, *e.g.,* Mini-bus may be made available for goods or passengers. The firm can offer its existing products to new markets (Cell B). This is another alternative to expand market opportunity, prolong product life cycles, profitability and survival.

3. ***Product Development:*** Product development occurs when a firm introduces new products to a market in which it is well established. Product development is the introduction of new products in the present market, *e.g.*, new synthetic fibres for known textile products. The firm may decide to create new products for existing market (Cell C). Established firms with high customer patronage may have new product additions upon existing market successes. The firm by offering new or improved products to present markets can satisfy better the present customers.

4. ***Diversification:*** Diversification occurs when a firm seeks to enter a new market with a completely new product. Such a firm has neither market expertise nor product knowledge. The firm may adopt a daring strategy by creating new products for entirely new markets. The innovations are introduced for the first time in the new

markets. Only innovating marketers venture to go in for diversification of products. The strategy is risky but the innovator can have spectacular results. In 1960, Polaroid camera and television were in this category in many countries. Microwave ovens and digital watches are novelties even today in many countries. We have entirely unfamiliar products for unfamiliar market. Factors rating for a new product introduction are: (1) marketability, (2) durability, (3) productive ability, and (4) growth potential. Philips is an example of diversification or lateral integration: light bulbs, radio lamp, television tube, radio sets, tape-recorders and wide range of luminaries or lamp shades.

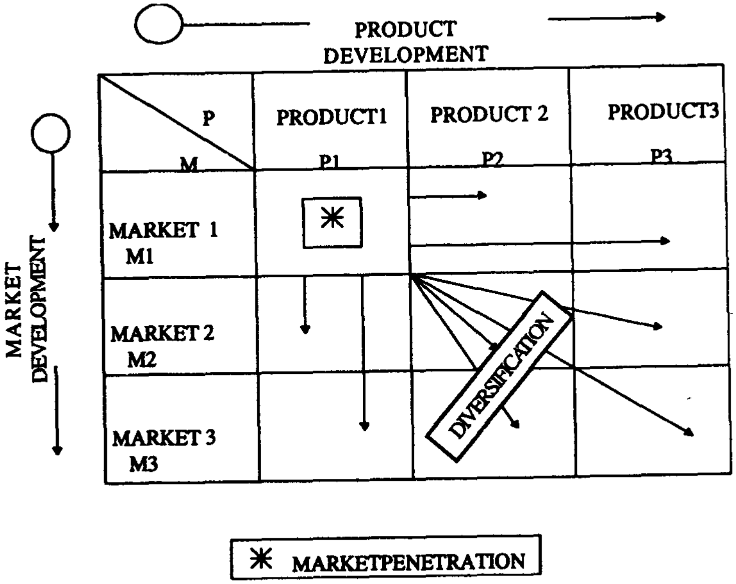


Fig. 4.7 Relationship between Various Marketing Strategies

Note :

1. We have four marketing strategies to achieve growth: (I) Market penetration, (2) Product Development, (3) Market Development, and (4) Diversification.
2. Market penetration, *i.e.*, penetrating the current market for higher usage rate is a conservative choice.
3. Diversification by entering a new market with brand new product is the most radical choice. It is the most difficult strategy as the firm has no market expertise and no product knowledge. Many firms fail with their diversification strategies.

NEW PRODUCT IDEA

Excluding the continual search for new ideas, the time and costs involved in the activities relating to product planning and development process, from experience in the USA, is as follows:

Stage	*Time*	*Money cost*	*Ideas reduced from original 60 to*
1. Screening	3 p.c	2 p.c	12
2. Business Research	12 p.c	7 p-c	7
3. Development	40 p.c	31 p.c	3
4. Testing	20 p.c	15 p.c	2
5. Commercialisation	25 p.c	45 p.c	1 (One successful new product)

Note:

1. Development, testing and launching are the most expensive stages.
2. They take more than 50 percent of total time involved in the process
3. About sixty new ideas are needed to find one good idea worth for commercialisation.

   About 48 of the new ideas fail to pass the screening stage. Only 12 ideas are compatible with the corporate sources and goals. Of these 12, five ideas are eliminated for lack of profit potential. Out of 7 ideas having profitability, only 3 ideas survive the product development stage. Finally two more fail during test marketing and only one new product becomes fit or eligible for market introduction and officially enters its life cycle.

Product Planning and Development Process

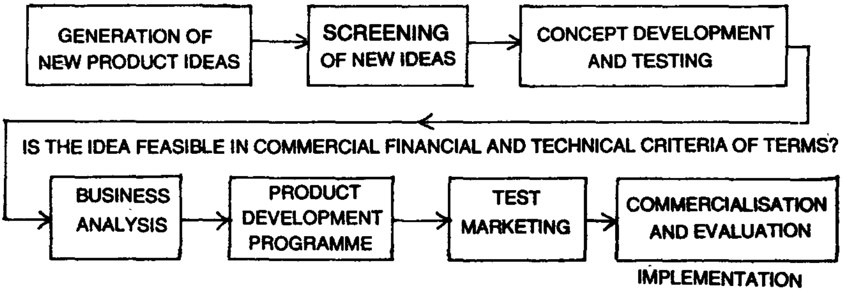


Fig. 4.8 New Product Development Process
(Innovation Management)

Note:

1. Product life cycle requires the product development programme for new products and new profit opportunities.
2. New product development must be carefully planned and managed.
3. Special organisational wing is necessary to stimulate, collect, screen, evaluate, develop, test, and commercialise new product ideas.
4. Business analysis is the crucial stage. It concentrates on demand analysis, cost analysis and profitability analysis. It also considers social responsibilities of marketing the new product.

There are seven steps in the planning and development of a new product.

1. New Product Ideas: We visualise the detailed features of a model product. Ideas may be contributed by scientists, professional designers, rivals, customers, sales force, top management, dealers, etc. We may need sixty new ideas to get one commercially viable product.

2. Ideas Screening: We have to evaluate all ideas and inventions. Poor or bad ideas are dropped and through the process of elimination only most promising and profitable ideas are picked up for further detailed investigation and research.

3. Concept Development and Testing: All ideas that survive the process of screening (preliminary investigation) will be studied in details. They will be developed into mature product concepts. We will have precise description for the ideas and features of the proposed ideas. At this stage we can incorporate consumer meaning into our product ideas. Concept testing helps the company to choose the best among the alternative product concepts. Consumers are called upon to offer their comments on the precise written description of the product concept *viz.*, the attributes and expected benefits.

4. Business Analysis: Once the best product concept is picked up, it will be subjected to rigorous scrutiny to evaluate its market potential, capital investment, rate of return on capital, etc. Business analysis is a combination of marketing research, cost benefit analysis and profitability analysis. Business analysis will prove the economic prospects of the new product concept. It will also prove soundness and viability of the selected product concept from business viewpoint. Now we can proceed to concentrate on product development programme. The proposed product must offer a realistic profit objective.

5. Product Development Programme: We have three steps in this stage, when a paper idea is duly converted into a physical product: *(a)* prototype development giving visual image of the product, *(b)* consumer testing of the model or prototype, and *(c)* branding, packaging and labelling. Consumer testing of the model products will provide the ground for final selection of the most promising model for mass production and mass distribution.

Test Marketing

After the product is designed, developed and every aspect of product is examined, it will be ready for mass production and marketing. But the marketers do not take the risk of mass marketing, unless they are assured of positive market response. Therefore they resort to test marketing which is otherwise called "Pre-testing." Pre-testing involves "a research technique in which the product under study is placed on sale in one or more selected localities or areas, and its reception by consumer and trade is observed, recorded and analysed."

This stage of product planning has more relevance to consumer products. As large number of consumers are scattered and have a wide range of behaviour pattern, they have to be reached in systematic, organised manner. Then only the product can be tested. Test-marketing provides vital clues about the product deficiencies which are not noticed at the time of designing and development. It throws light on the working and relative importance of the different components of the marketing mix in making the new product a success. Marketers will come to know of the financial and environmental difficulties the product would face. Thus test marketing,

(i) Helps management in increasing the profit potential of the new product, averts a major marketing failure;

(ii) Helps in assessing the nature and dimensions of consumer reactions to the new product; and

(iii) It neutralises competitive reactions of the rival products by knowing the strategies of competitors through marketing intelligence network.

The important aspects to be examined in test marketing are;

(i) Generation of potential sales volume.

(ii) Locating strong points of the product.

(iii) Finding out innovative buyers.

(iv) Designing effective advertising message to transmit strong points of the products.

(v) To test potential for repeat purchases.

Finally test marketing will inform the management to

(i) Commercialise the product, or

(ii) Reject the product, or

(iii) Further test the product.

Commercialisation

The final stage in product planning is commercialisation of the product. Many product ideas die out at several stages of product planning. The product idea which sustains rigours of various tests of different stages ends up in commercialisation.

Commercialisation refers to "the process of finally deciding the product profile, building up requisite manufacturing and ancilliary marketing results, and introducting and the product in the market for sale." This indicates that products which reach commercialisation stage will have the following activities.

(i) To decide about packaging.

(ii) To decide about brand.

(iii) Providing manufacturing facilities.

(iv) Developing proper marketing-mix, *i.e.* to decide about pricing, promotion media, distribution channel etc.,

These activities consumes more time and money. The expenditure at this stage will be more than what was spent in the previous stages. Therefore the job of commercialisation of product should be managed well. Product launching has to be meticulously planned. Product quality has to be maintained to attract customers.

Product quality governs the ultimate fate of the entire marketing programme and firm in the market place. More advertising and marketing elegance cannot only build image for the product in the market. Performance quality and market perceived quality management maintains brand image in the consumer. Japan and Germany have emerged as business leaders today through quality assurance and "Total Quality Management." (TQM). Unique product features and freedom from deficiencies create numerous opportunities to the firm. If product features click with customer needs and expectations, even normal promotion is enough in a competitive market. Quality assurance involves cost. But is pays back in the form of goodwill, reliability and profitability. Therefore at the time of commercialisation quality concept should be developed and maintained.

Why New Products Fail ?

Despite careful attention to details in product planning and development as many as 50 per cent of new products actually entering the market have a very short life span and market failures occur. The following are the reasons given for failure of new products: (1) inadequate market analysis and market appraisal; (2) insufficient and effective marketing support; (3) bad timing of introduction of a new product; (4) failure to recognise rapidly changing market environment; (5) absence of formal product planning and development procedure; (6) failure of the product to fill consumer needs due to ignorance about consumer attitudes about new products; (7) technical or production problems; (8) higher costs than estimated costs; (9) product problems and defects; (10) failure to estimate strength of competition; (11) too many new products entering the market; (12) many products not new as perceived by consumers.

Most of the reasons for failure of new products can be eliminated by the company itself. The faults for new product failure lie within the managerial control. Chances of success of new products are relatively bright if the company launching the new product has atleast one advantage: (1) product advantage, or (2) marketing advantage, or (3) creative advertising advantage. Of course, product advantage is of paramount importance. If your product can fill the customer needs *precisely*, it is bound to have a bright future. Better marketing research is essential to evaluate market needs and prospects. Marketing begins with consumers and products must satisfy needs. The marketer must adopt improved screening and evaluation of ideas and products. Integrated business planning must be continuously done to establish profitable relationship with changing customer and changing environment.

TABLE 4.1

CRITICAL FORCES INFLUENCING MANAGEMENT OF PRODUCTS

External Forces	*Internal Forces*
1. *Markets.* Prime determinants of product success.	1. *Financial Resources.* Needs of Earnings and Cash-flow affecting Product Decisions.
2. *Competition.* Always present and threatening.	2. *Technological* Ability to develop products and keep them up-to-date.
3. *Channels.* Dealer support a vital factor.	3. *Supply of Raw Materials and Parts* to ensure smooth production planning and scheduling.
4. *Technology.* Continuously involved during Product Life Cycle.	4. *Marketing* the most critical internal aspect of product success.
5. *The Economy.* Creating opportunities and threats revealed by economic indicators.	5. *Production* second in importance to marketing to cope with expanding and competitive markets.
6. *Government.* Positive or negative actions.	6. *Human Resources.* Personnel abilities in product planning, management, and implementation.

Note:

1. Most external forces are controllable by the firm.
2. They need accurate forecasting.
3. Internal forces are controllable. They will vary between firms, between products, and between stages of product life.

POSITIONING THE PRODUCT IN THE MARKET

Marketers are expected to adopt a product or product line to the various needs of the market. A product can enjoy a strong position in he market when it fills the consumer need so far not satisfied by a rival. Unoccupied niche in the market is the best position for a product. Marketing research can discover such a niche. The product position determines its image in relation to other rival products. There are three methods to adopt the product exactly to the market: (1) market aggregation, (2) market segmentation, and (3) product differentiation.

*1. **Marketing Aggregation:*** A single product item or limited product line has only one market. It is assumed that we have only one demand curve for the product. Market aggregation is equivalent to standardisation of marketing policy. It is suitable from the point of view of production, storage, marketing and physical distribution. It helps a firm at the start of its operations. But such a product policy invites competitors and it also involves high promotional and advertising costs.

*2. **Marketing Segmentation:*** Market segmentation as a product policy implies an extensive range of products, each of which is fitted for one segment or for one demand curve. The conscious search is made to separate buyers into a number of segments each varying in size, buying power and buyer behaviour supply is bent according to varying needs of demand. Product development takes place on the basis of characteristics of each segment. The product policy is supported by powerful advertising and promotion. Automobile industry in Europe, America and Japan is a classical example of product policy based on market segmentation. Marketers can adopt only one or a few market segments for their products. This is known as market concentration. Excessive market segmentation amounts to a market fragmentation and it leads to losses. Limiting factors for market segmentation are: (1) rising cost to product planning and development, (2) rising unit cost of production, (3) rising inventory cost for a variety of different lines.

*3. **Product Differentiation:*** Product differentiation is done through branding and packaging. It is an attempt to induce or direct demand to adjust itself to the manner in which supply has been segmented. The seller thinks that demand can be directed to his differentiated market offering. Product differences are stressed to promote a social psychological segment. Good examples are the markets for detergents, toilet soaps, cosmetics, toothpastes and many other consumer products. The main limiting factors on product differentiation or branding are ever-increasing costs of advertising and promotion. Market segmentation implies that supply is prepared to adjust itself to meet customer preferences or demand. Product differentiation on the other hand implies that demand is supposed to adjust itself to supply. Branding, packaging and promotion are supposed to achieve this miracle.

Thus, the product diversification takes places with the following objectives:

(i) Effective utilisation of existing selling and distribution facilities;

(ii) To satisfy the changing needs of customers and industries;

(iii) To utilise the firm's goodwill to the core, i.e., to take advantage of companies' reputation in the market.

(iv) Total exploitation of distribution channel;

(v) To improve the turnover and profit of the existing products along with new ones developed;

Pattern of Diversification

Diversification takes place in three different patterns:

(1) Development of related products in the existing line.

(2) Development of Unrelated products.

(3) Product replacement.

1. Development of Related Product: If the company feels that turnover of the existing product line is falling, (2) it can add some more products to the related line. The objects are *(i)* to reduce the average selling cost, *(ii)* to face the competition in the market, *(iii)* to identify its sales organisation, and *(iv)* to raise the profit position. In India, we are observing these days that many companies have adopted this strategy to maintain or improve the turnover. For example: Brooke Bond is adding new spices to its existing spice line to maintain that division.

2. Development of Unrelated Products: Diversification is also taking place in unrelated lines. The products cannot be grouped together as in the first case. For example: L & T, basically a capital goods industry is producing cement. ITC, essentially a tobacco company is running the hotel business. These activities are not related to each other. The reasons for such a diversification are: (1) to increase the company's market share in existing products, (2) Capitalisation of company's image or goodwill to the core, (3) to catch new markets, (4) Stability of the company through cost-effectiveness and consumer satisfaction. However, diversification into a new area is a risky proposition and it can be made by conducting extensive market research and analysis.

*3. **Product Replacement:*** When an existing product has reached the last stage in its life cycle (death) the firm can think of introducing a new modified product in the same line. Thus, the old product will be replaced by new product to maintain sales volume and profit.

Reasons for Diversification

There are several reasons for product diversification :

*1. **Idle Capacity:*** Company's resources like managerial ability, research and marketing facilities may remain idle for want of market for the existing product or the company may be facing certain difficulties in producing the product to the full capacity. In order to utilise the idle capacity the product diversification takes place. From this, there will be change in product mix and reduces the cost of operation as the existing resources are fully utilised.

*2. **Innovative Management:*** If the management is innovative in character and is efficient, it always plans for new products to cover new areas of market or to satisfy the existing market in a better way. New products — related or unrelated — are developed by them, because they are capable of doing it.

*3. **Government Policy:*** Industrial and economic policies of the government also result in diversification. If the government policy affects the existing monopoly power of a firm, the firm then can think of developing another product where it can hold monopoly power or better market the product. Similarly, the industrial policy of the government may also motivate the company to develop new product with the existing infrastructure.

*4. **Development of Science and Technology:*** Development of science and technology wield greater influence on product diversification. Several new production techniques are innovated which give the consumers more satisfaction in terms of modified products and cost of production can also be reduced with the introduction of new product. Science and technology make the existing product outdated and hence diversification becomes inevitable lest the firm should be liquidated.

*5. **Habit of Producer:*** There is an unique character in certain producers to change the product quite often. The producer's desire is quite strong to produce different products to maintain goodwill in the market or to increase his market share and control the market. This attitude of the producer makes him to go on diversifying.

*6. **Social Changes:*** The change in taste, fashion and preference of consumers initiate product diversification. When consumer demand the products according to their preferences, producer will have to produce them implicitly. Hence, product diversification.

*7. **Consumer Faith:*** Consumers develop the company image so much in their mind that all their requirements have to be satisfied by the company in which they have faith. For exchange.: Tatas. They are industrial giants of our country and are producing a host of industrial and consumer goods. People purchase their products as they are believed to be reliable. They- enjoy the confidence of people and diversify the products and sell with ease.

POINTS TO REMEMBER

1. **Product Plan - Issues to be resolved**
    - (a) Product plan.
    - (b) Product mix.
    - (c) Packaging
    - (d) Labelling.
    - (e) Branding.
    - (f) Service after sale
    - (g) Organising for product planning and development.
    - (h) Product research and improvements.
2. **Product Life Cycle:**
    - (a) Introduction.
    - (b) Growth.
    - (c) Maturity.
    - (d) Saturation.
    - (e) Decline.
3. **Product Planning and Development Strategy**
    - (a) Market Penetration.
    - (b) Market Development.
    - (c) Product development.
    - (d) Product diversification.
4. **Steps in planning and development of new product**
    - (a) New product ideas.
    - (b) Ideas screening.
    - (c) Concept development and testing.
    - (d) Business analysis.
    - (e) Product development programme.
    - (f) Test marketing.
    - (g) Commercialisation.
5. **Positioning product in the market — Methods to adopt the product exactly to the market :**
    - (a) Market aggregation.
    - (b) Market segmentation.
    - (c) Product differentiation.

6. **Product diversification — Patterns :**
   - (a) Development of related products in the existing line.
   - (b) Development of unrelated products.
   - (c) Product placement.
7. **Reason for diversification**
   - (a) Idle capacity.
   - (b) Innovative management.
   - (c) Government policy.
   - (d) Development of science and technology.
   - (e) Habit of producer.
   - (f) Social changes.
   - (g) Consumer faith.

STUDY QUESTIONS

Part-A (16 marks)

(2 marks questions — answer in 4 lines)

1. What is product planning?
2. What is a product?
3. What is product positioning?
4. Name the stages of product life cycle.
5. What is product mix!*(B.U. Apr. '99)*
6. What is product innovation?
7. What is product development?
8. What is product line?
9. What is product diversifications?
10. What is product differentiation?

Part- B (24 Marks)

(Answer in 10 lines - 8 marks each)

1. Analyse three dimensions of product concept.
2. Explain the importance of sound product.
3. Analyse the social aspect of new product opportunities.
4. Briefly analyse the different stages of product life cycle.
5. Write an analytical note on diffusion of innovation.
6. Write a brief note on product planning and development process.
7. Write an analytical note on the relationship between various marketing strategies.
8. Write a note on the positioning the product in the market.
9. State as to why a new product fails.
10. Explain the basic components of product planning. **(B.U., Apr. '99)**

Part - C (60 Marks)

(Answer in 3 pages — 15 marks each)

1. What is a product? How the addition of money-back guarantee, service after sale and credit can improve a total product?
2. What are the selling points of a product? Comment on product line and product mix.

3. Evaluate the interaction of marketing and innovation.
4. Discuss the various stages of the product life cycle. State the significance of product life cycle in the marketing mix and product planning.
5. Discuss the strategies relating lo product planning and development.
6. Describe the three alternatives used in positioning a product to the market.

5

PRICING STRATEGIES

Importance of Pricing — Objectives of Pricing — Pricing Policies — Discount and Allowances

Pricing decisions have strategic importance in any enterprise. Pricing governs the very feasibility of any marketing programme. Because it is the only element in a marketing mix accounting for demand and sales revenue. Other elements are cost factors. Price is the only variable factor determining the revenues or income. A variety of economic and social objectives came into prominence in many pricing decisions. We now come to the most absorbing question of pricing.

What is Price?

Economists defines price as the exchange value of a product or service always expressed in money. To the consumer the price is an agreement between seller and buyer concerning what each is to receive. Price is the mechanism or device for translating into quantitative terms (rupees and paise) the perceived value of the product to the customer at a point of time. The buyer is interested in the 'price' of the whole 'package' consisting of the physical product plus a bundle of expectations or satisfactions. The consumer has numerous expectations such as accessories, after sale service, replacement parts, technical guidance, extra services, credit and many other benefits. Thus price must be equal to the total amount of benefits (physical, economic, social and psychological benefits). Any change in the price will also bring about alterations in the satisfaction side of the equation. To the ultimate consumer, the price he pays for a product or service represents a sacrifice of purchasing power. Prices paid by resellers are also sacrifices. Price is the only objective criteria (although an imperfect measuring rod) for the consumer for comparing alternative items and making the final choice. To the consumer price is a product disfeature, *i.e.*, a feature of which he disapproves However, to the seller price is a source of revenue and a main determinant of profit. To the seller it is a product feature most welcome.

Pricing is equivalent to the total product offering. This offering includes a brand name, a package, product of benefits, service after sale, delivery, credit and so on. From the marketer's point of view, the price also covers the total market offering, *i.e.*, the consumer is also purchasing the information through advertising sales promotion and personal selling and distribution method that has been adopted. The consumer gets these values and also covers their costs. We can now define price as the money value of a product or service agreed upon in a market transaction. We have a kind of price equation, where:

Money (price) = Bundle of Expectations or satisfactions.

Included in the bundle of expectations may be physical product plus other attributes such as delivery, installation, credit, return privileges, after sales servicing and so on.

IMPORTANCE OF PRICING

Price is a matter of vital importance to both the seller and the buyer in the market place. In money economy, without prices there cannot be marketing. Price denotes the value of a product or service expressed in money. Only when a buyer and a seller agree on price, we can have exchange of goods and services leading to transfer of ownership.

In a competitive market economy price is determined by free play of demand and supply. The price will move forward or backward with changing supply and demand conditions. The going market price acts as basis for fixing the sale price. Rarely an individual seller can dishonour the current market price. In a free market, economy, we have freedom of contract, freedom of enterprise, free competition and right to private property. Price regulates business profits, allocates the economic resources for optimum production and distribution. Thus price is the prime regulator of production, distribution and consumption of goods. Economics revolve around pricing of resources. Price influences consumer purchase decision. It reflects purchasing power of currency. It can the determine the general living standards. In essence, by and large every facet of our economic life is directly or indirectly governed by pricing. This is literally true in our economy.

Pricing decisions interconnect marketing actions with the financial objectives of the enterprise. Among the most important marketing variables influenced by pricing decisions are: (1) sale volume, (2) profit margins, (3) rate of return on investment, (4) trade margins, (5) advertising and sale promotion, (6) product image, (7) new product development. Therefore, pricing decisions play a very important role in the design of the marketing mix. Pricing strategy determines the firm's position in the market vis-a-vis rivals. Marketing effectiveness of pricing policy and strategy should not suffer merely on account of cost and financial criteria.

Price is a powerful marketing instrument. As a marketing weapon, pricing is the big gun. However, it must be used with great caution. It is a dangerous and explosive marketing force. It may doom a good product to failure. Low pricing strategies are irreversible decisions. They must be used correctly from the outset. Every marketing plan involves a pricing decision. Therefore, all marketing planners must make accurate and planned pricing decisions.

The Significance of the Price Factor

The selling price plays a unique role in business because of the price level: Price (1) controls the sales volume and the firm's market share, (2) determines the total sales revenue (sales revenue = sales

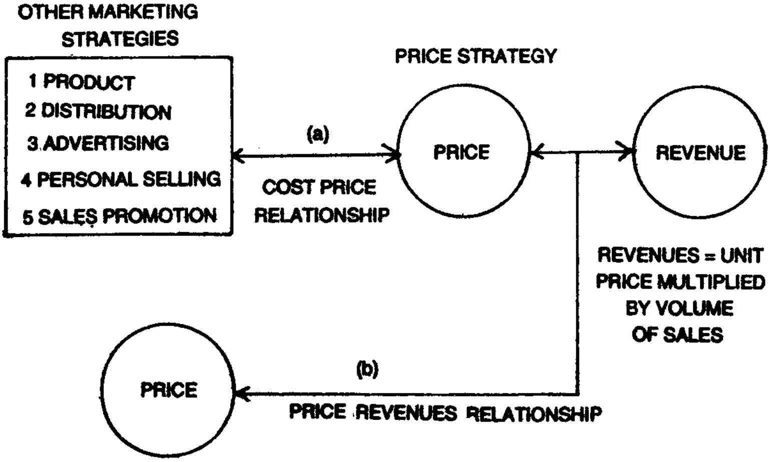


Fig. 5.1 Place of Price in the Marketing Strategy

volume unit price), (3) regulates the rate of return on investment (ROI) and through ROI price influences sales profitability, (4) creates an impact on unit cost in mass production. Low price increase total production and sale turnover, and ultimately mass production (through economies of sale) leads to the lower unit cost of production. Low price induces also efficiency in production and marketing. Henry Ford stated: "Our policy is to reduce the price, extend operations and improve the product."

Comments

1. All other elements (except price) in the marketing mix are called non-price factors. They influence price and are also influenced by price. All elements are interdependent interacting factors.
2. We have two relationships: *(a)* Cost/Price relationship, and *(b)* Price/Revenue relationship.
3. Price and other marketing mix variables are complementary factors. They may be partial substitutes for each other.
4. Together all elements in the marketing mix collaborate to accomplish a common objective, *viz.*, to produce sales and sales revenue.
5. All non-price factors of the marketing mix are cost factors involving expenditure outflow of funds.
6. Price is the only marketing variable to determine revenues or income inflow of funds. Revenues must be high and must more than cover production costs as well as marketing costs. Thus price has a unique role extending beyond the area of marketing policy.
7. A firm is an organisation producing economic utilities. Within the firm, price factor tries to achieve an equilibrium between revenues and costs. It aims at profitability. Hence. revenue must exceed total costs. Price also acts as a balancing force to maintain the balance between a firm's own marketing mix and those of rivals.

OBJECTIVE OF PRICING

A variety of objectives may guide pricing decisions:

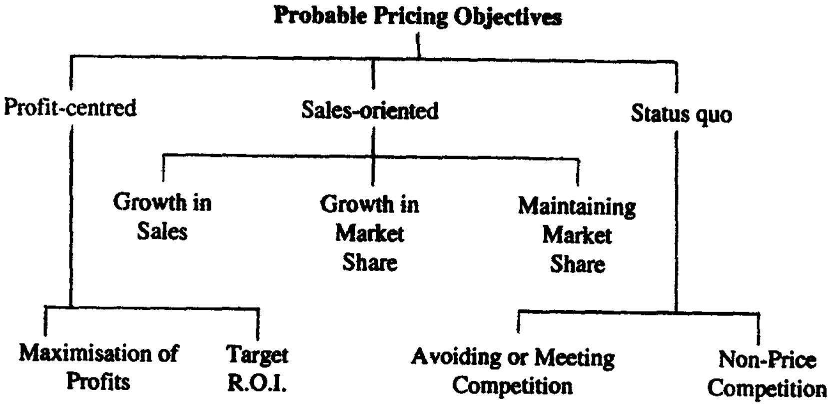
1. Growth in Sales: A low price can achieve the objective of increase in sale volume. A low price is not always necessary. A right price can stimulate the desired sales increase. In practice, price and non-price objectives are co-ordinated to produce the desired increase in sales. Competitive price, if used wisely, can secure faster increase in sales than any other marketing weapon.

2. Market Share : Price is typically one of those factors that carries the heaviest responsibility for improving or maintaining market share — a sensitive indicator of customer and trade acceptance.

3. Predetermined Profit Level: Return on Investment, say 15 to 20 percent is a common decision in marketing. Pricing for profit is the most logical of all pricing objectives.

4. ***Meet or Follow Competition:*** Many firms desire the stabilisation of price levels and operating margins as more important than the maintenance of a certain level of short-run profits. The price leader maintains stable price in the industry. Follow the leader.

5. ***Control Cash-flow:*** A principal pricing objective is to return cash as much as possible (the funds invested) within a given period. Investment in research and development, market development, promotion, *etc.*, should pay back within a specified period. Capital expenditure on any project must be recovered within a certain period. Pay back or cash-flow objectives fits in easily with other corporate objectives.



Place Price in the Market Strategy

Note:

1. While determining objectives of a pricing policy, marketers must take into account reactions of a number of parties such as customers, competition, resellers or dealers, government, public opinion, and so on.
2. The objectives may not be mutually exclusive. Marketers have to resolve their conflicts. For instances, there may be a conflict between sales maximisation objective and a return on investment or profit objective. However, it should be noted that maximum market penetration in the short run (in the early phase of product life cycle) is the key to maximum R.O.I. in the long run.

Market Price

The market price is the price determined by the free play of demand and supply. The market price of a product affects the price paid to the factors of production — rent for land, wages for labour, interest for capital and profit for enterprise. In this way, price becomes a prime or basic regulator of the entire economic system because it influences the allocation (distribution) of these resources (factors of production). For example when the price of a commodity has a rising tendency, we shall have higher wages attracting more labour, higher interest attracting more capital, and so on, in the industry in which prices are rising. Conversely, under falling prices, low wages, low rent, low interest, and low profits will reduce the availability of labour, land, capital and risk-takers in a free market economy. Prices direct and control production and consumption.

Since market price is determined in an impersonal way through the general relations of demand and supply, the individual seller has no control over the market price and the actual market price at any given time may be above or below the costs of individual sellers. Market price is indicated by published prices, market reports, etc. A seller will have to change his output to adjust with the current market price in order to secure maximum gains or minimise his losses. He can also minimise operating costs.

Price as a Measure of Value

Economic theory of price has a few simple assumptions regarding products and buyer behaviour. Buyer's tastes and preferences are considered as given (constant). Buyer is considered essentially a rational human being. The marketing concepts like brand image, brand loyalty and benefit segmentation 'emotional motivation' are outside the scope of price theory. Hence, in practice, the classical price theory, saying price determines value of the product, is not true.

Marketers have recognised the importance of perception, learning and attitudes creating psychological reactions to price, at least in consumer goods. The social and psychological factors must be recognised in the evaluation of pricing strategies. The social and psychological influences are responsible to support the consumer's inclination to use price as an indicator of quality for certain products *e.g.*, cosmetics, jewellery, and clothing. Such products have concealed values and benefits which the consumer cannot evaluate rationally or on objective basis. Consumer does not have psychological dimensions and may dominate in the consumer behaviour. Under such situations, price is the most easily (but rough) available indicator of product quality and value for many customers. Buyers believe in the implicit subjective process viz., "If it costs more, it must be better." Marketers are bound to exploit buyer's emotions, preference and habits.

Charm pricing is another psychological dimension of pricing. Accepted pricing conventions have a charm for the consumer, *e.g.*, price like Rs. 9.90 or Rs 29. The quotation of Rs. 9.90 sound better value than Rs. 10.

Price lining is another psychological dimension of pricing accounting for common marketing practice. For example, a reasonable price range for a new television set is between Rs. 2,500 and Rs.4,500 for most people. Only a handful of buyers would seriously consider purchasing TV set costing Rs. 6,500 or more, and new TV set costing less than Rs. 2,000 would generate doubts and suspicion.

The consumers answer the question (Is it worth it?) in terms of the familiar equation:

Satisfaction = Benefit - Cost

The price is the cost part of equation. It indicates sacrifice of purchasing power.

The reasons for the inability of price to determine the perceived value of the product are: (1) There are considerable differences in the market information available to consumers. (2) We have significant differences in the bargaining power of consumers. (3) In large parts of the retail market, we have non-price competition replacing price competition. The purpose of non-price competition is also to make sales or demand curve less sensitive to price and the price of an article might be raised without adverse effect on sale (demand has become less price elastic due to promotion). The higher price compensates for promotion costs incurred in stimulation of demand.

Multistage Price Determination Process

The marketing management knows that the 'cost-plus a reasonable profit' doctrine is self-defeating. Pricing strategy must be based on the consumer (on the demand side), just as strategies on product distribution and promotion are based on the consumer. Of course, costs (the supply side) are not forgotten but they are given proper place in the pricing process. Pricing process must start in the market.

Decisions on pricing are taken in the light of marketing opportunities, competition and many other variables influencing pricing. The price decisions must take into account all factors affecting both demand price and supply price. The price determination process involves the following steps: (1) Market segmentation, (2) Estimate of total demand, (3) Market share, (4) Designing the marketing mix, (5) Estimate of total costs, (6) selecting pricing policies, (7) Determining pricing strategies, (8) Developing the price structure.

1. ***Market Segmentation:*** On the basis of market opportunity analysis and assessment of the firm's strengths and weaknesses marketers will find out specific marketing targets in the form of appropriate market segments. There should be a perfect match or a kind of marriage between the firm and its market. Marketers will have firm decisions on: *(a)* the type of products to be produced of sold *(b)* the kind of service to be rendered, *(c)* the costs of operations to be estimated, and *(d)* the types of customers or market segments sought.

2. ***Estimate of Demand:*** Marketers will estimate total demand for the products. It will be based on sales forecast, channel opinions and degree of competition in the market. Prices of comparable rival products can guide us in pricing our products. We can conduct regular survey of potential buyers. We can determine market potential by trying different prices in different test markets. Once we know the expected prices, we can compute sales volume of several prices.

3. ***The Market Share:*** Marketers will choose a brand image and the desired market share on the basis of competitive reaction. Market planners must know exactly what his rivals are charging. Level of competitive pricing enables the firm to price above, below, or at a par and such a decision is easier in many cases. Higher initial price may be preferred, if you, anticipate a smaller market share, whereas, if you expect a much larger market share for your brand, you will have to prefer relatively lower price. Proper pricing strategy is evolved to reach the expected market share either through skimming price or through penetration price or through a compromise, *i.e.*, fair trading, or fair price to cover cost of goods, operating expenses and normal profit margin.

4. ***The Marketing Mix:*** The overall marketing strategy is based on an integrated approach to all the elements of marketing mix. It covers: (1) product market strategy, (2) promotion strategy, (3) pricing strategy, and (4) distribution strategy. All elements of the marketing mix are essential to the overall success of the firm. Marketers will have to assign an appropriate role to price as an element of the marketing mix. Price plays an important role in relation to and in support of other elements of the marketing mix. Promotional strategy will affect pricing decisions. The design of the marketing mix can indicate the role to be played by pricing in relation to promotion and distribution policies.

5. ***Estimate of Costs:*** Straight cost-plus pricing is not desirable always as it is not sensitive to demand. Marketers must take into

account all relevant costs as well as price elasticity of demand, if necessary, through market tests.

6. Pricing Policies: Price policies provide the general frame - work within which managerial decisions are made on pricing. Pricing policies are guidelines to carryout pricing strategy. Pricing policy may desire to meet competition or we may have pricing above or below the competition. We may have fixed or flexible pricing policies. Pricing policies must change and adapt themselves with the changing objectives and changing environment.

7. Pricing Strategies: Pricing policies are general guidelines for recurrent and routine issue in marketing. Strategy is a plan of action (a movement or counter movement) to adjust with changing conditions of the market place. New and unanticipated developments may occur, *e.g.*, price-cut by rivals, government regulations, economic recession, fluctuations in purchasing power of consumers, changes in consumer demand, and so on. Situations like these demand special attention and relevant adjustments in our pricing policies and procedures.

8. The Price Structure: Developing the price structure on the basis of pricing policies and strategies is the final step in price determination process. The price structure will now define selling price for all products and permissible discounts and allowances to be given to middlemen as well as various types of buyers.

Note:

1. Specific prices for the products are the result of a combination of many factors such as: Production costs, marketing costs, competitor's price, consumer demand, economic conditions like inflation and recession, government regulations, social responsibility and so on. Both cost and demand-oriented factors determine the prices.
2. The ultimate goal is to set a price that is in tune with the rest of the marketing mix ingredients and that will enable the firm to achieve its objectives.

Forces Influencing Price Decision

Price is a vital managerial function. Price determination function involves consideration of many relevant internal and external variables or factors.

Internal variables are involved under the multi-stage process of price determining, *e.g.*, pricing objectives, role of price in marketing programme, cost of production and marketing, images of the firm and its products, and so on. The internal forces are controllable pricing variable. But there are also external variables mostly uncontrollable by an enterprise and those includes such factors as government regulation, competition, buyer behaviour, economic conditions, ethical consideration, characteristics of demand and so on.

Every marketer involved in price decision must take into consideration the impact of both the controllable and uncontrollable variables when he is called upon to develop pricing policies and procedures. The pricing decision, as it is affected by all variables is shown in the model of pricing forces.

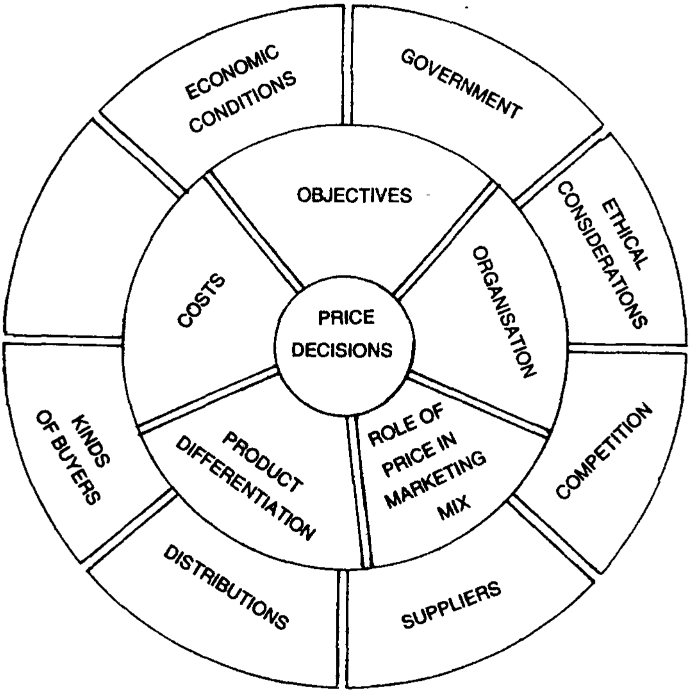
Note:

1. Reactions to pricing policy can be expected from: (1) resellers, *i.e.*, the wholesale and retail trade, (2) ultimate users *i.e.*, individuals, organisations, (3) competitors, (4) the government, supplies, trade unions and public opinion.

Base Price

After pinpointing the market, estimating demand, and discovering rival's prices, marketer can identify basic price alternatives. Basic price is a realistic market price. It resembles an ideal price. However, it is only a starting point in the determination of actual pricing structure.

Pricing decisions are guided by overall organisation objectives. A base price is usually established, and adjustments from that base price is made to ensure closer correlation between the product of the



MODEL OF PRICING FORCES
Fig. 5.2 Model of Pricing Process

firm and consumer wants and desires, *i.e.*, matching the product offering with the expected bundle of satisfactions (perceived value by consumer). The figure given below indicates number of choices in setting the base price. A base price acts as a reference price. It is a price from which actual prices can be determined by adding extras and deducting discounts. The actual prices reflect differentials from the base price because of market structure, geographical location, competitive conditions, and the terms of individual transactions.

Comments

1. At one extreme (at the top) there is a price (too high) at which there is no demand at all. At the other extreme (at the bottom) there is a price (too low) at which no amount of demand will yield enough revenues to cover cost.
2. Skimming price (skim the cream) is rather high in the range of possible prices. A new product enters the market with a high price to generate the most profitable sales. At the introduction stage demand is more inelastic. Rich buyers are not price conscious. Too high price can be lowered more easily subsequently.
3. A low price may be deliberately fixed to penetrate the market easily. It provides maximum product exposure. Sales growth potential is very high.
4. Under usual circumstances, marketer selects base price somewhere between skimming price and penetration price for each product line. Factors influencing the choice of base price are shown in the figure.
5. Unique product features, rising costs or a company reputation for quality and services are the factors influencing the base price in an-upward direction. A unique product offered by reputed and respected company can have a high price and buyers may be prepared to buy it.
6. On the other hand, objective of a large market share, government price controls, intensive competition from rivals would compel the marketer to fix the base price lower and lower.

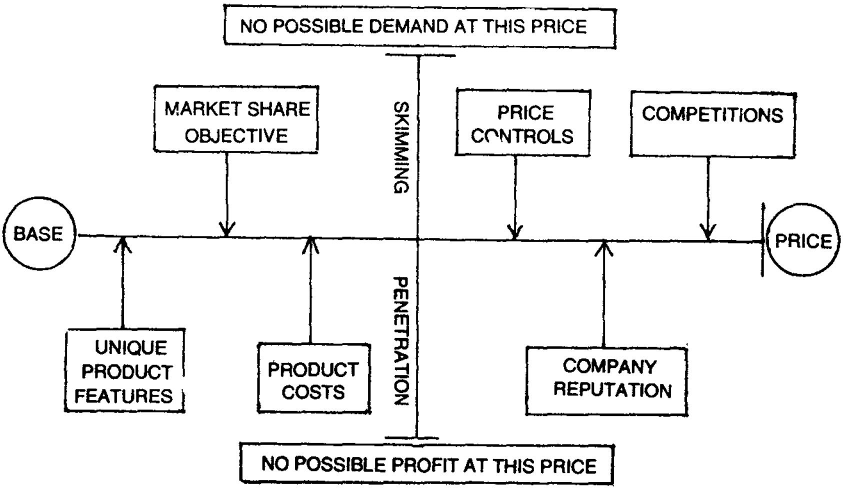


Fig. 5.3 Factors Determining the Base Price Level

Break-even Analysis and Pricing

Break-even analysis is a managerial tool that emphasizes the relationships, among decision variables such as price, costs and volume of sales.

Sales Revenue = Total Costs

This is called the break-even point at which the firm has neither gains nor losses. The firm just manages to cover its total costs.

When the sales revenue *exceeds* total costs, the result or difference is profit and when sales revenue is less than total costs, the result or difference is naturally loss. Thus break-even point is that point at which sales revenue is just equal to total costs.

Sales Volume: Sales volume is a function of prices charged and the amount of products sold. (Price per unit multiplied by quantity sold). Our marketing plan is based on the sales budget and the sales budget is itself based on the sales forecasts, *i.e.*, estimated sales volume.

Costs: There are two categories of costs. Fixed costs are the costs of being in business. For a given range of operations they are constant. Variable costs vary with the output or number of units produced.

Contribution: The concept of contribution is important in break-even analysis. Suppose a marketer is manufacturing and selling shirts. The sale price per shirt to the dealer is Rs. 70. If variable costs are equal to Rs. 35 and selling and other direct expenses are Rs. 15, the total variable cost is Rs. 50 per shirt. The contribution to profit and overheads per unit is Rs. 20 (Rs. 70 minus Rs. 50).

$$\begin{array}{c}\text{Unit Contribution}\\ \text{to Fixed Costs}\end{array} = \left[\begin{array}{c}\text{(Selling Price)}\\ \text{per Unit}\end{array}\right] - \left[\begin{array}{c}\text{(Variable Costs)}\\ \text{per Unit}\end{array}\right]$$

The figure points out that the break-even point is 5,000 units of sales or Rs. 35 lakhs (Rs. 70 × 5,000). The marketer has total annual Fixed Costs—Rs. 1 lakh. Beyond the break-even point profits are earned. Before the break-even point losses are incurred. Sales volume exercises considerable influences on profits or losses.

In the symbolic form:

C = Contribution
SP = Selling Price
VC = Variable Cost
FC = Fixed Cost
BP = Break-even Point
Selling Price = Rs. 70 per unit

Variable Cost = Rs. 50 per unit
Contribution = Rs. 20 per unit
Fixed Costs = Rs. 1 Lakh.

$$BP = \frac{FC}{SP - VC} \text{ or } \frac{FC}{C}$$

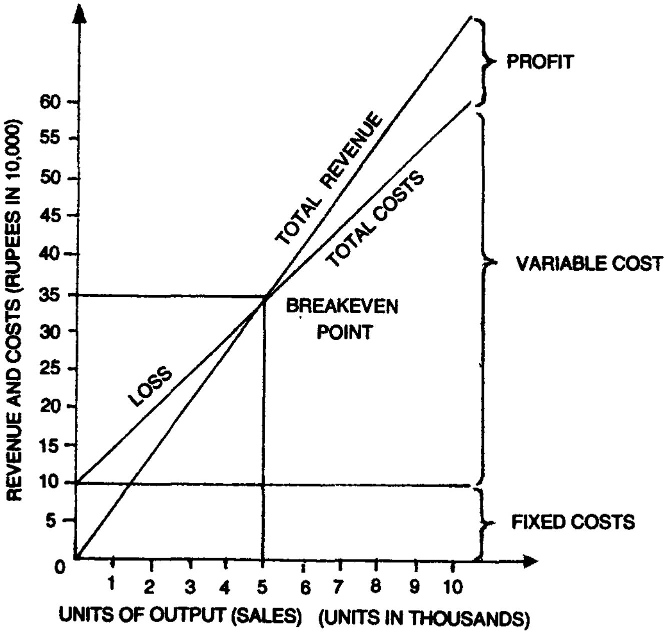


Fig. 5.4 Break-even Analysis and Pricing

In our example in units

$$BP = \frac{\text{One Lakh}}{70 - 50} \text{ or } \frac{\text{One Lakh}}{20} = 5{,}000 \text{ units}$$

To obtain break-even point in rupees 5,000 units are multiplied by selling price, *viz.*, Rs. 70 per units.

$$BP = \text{Rs. } 70 \times 5{,}000 \text{ units} = \text{Rs. } 3.5 \text{ lakhs.}$$

Item	*Level A*	*Level B*	*Level C*
Revenue from Sales	Rs. 2.1 L	Rs. 3.5 L	Rs. 4.9 L
Total Variable Costs	1.5 L	2.5 L	3.5 L
Total Fixed Costs	1.0 L	1.0 L	Rs. 40,000
Profit or Loss	Rs. 40,000 Loss	0 (Break-even point)	Profit

Pricing is the most important factor in the break-even analysis, an increase in selling price enables a marketer to reach break-even point much more rapidly. If the selling price is Rs. 75 per unit the break-even point well be:

$$\text{BP} = \frac{1{,}00{,}000}{70 - 50} = \frac{1{,}00{,}000}{25} = 4{,}000 \text{ units}$$

The break-even analysis is the basic tool for the analysis of cost-based pricing decisions. The higher the mark-up, the steeper the slope of the sales revenue line and the lower the break-even quantity.

Note:

1. Break-even analysis is essentially a tool for cost plus pricing. It ignores the market demand at the various prices.
2. It assumes that costs are static. This is not true in practice.

Return on Investment (ROI)

Return on Investment (ROI) is financial ratio of profit to equity. In order to find out the role played by price in ROI, the ratio can be decomposed:

$$\text{ROI} = \frac{\text{Revenue}}{\text{Assets}} \times \frac{\text{Profits}}{\text{Revenues}} \times \frac{\text{Assets}}{\text{Equity}}$$

$$\text{(Three Components)} \quad \frac{\text{(Turnover)}}{1} \quad \frac{\text{(Earnings)}}{2} \quad \frac{\text{(Leverage)}}{3}$$

ROI can be improved through pricing that will increase turnover while maintaining earnings (revenues are equal to unit, price multiplied by quantity). Grocery shops and supermarkets operate on the thin earnings ratio by rapid turnover.

If turnover can be maintained, ROI can be improved by increasing the earnings ratio.

Marketing manager would be very glad, if he can increase both ratios. Turnover ratio and earnings ratio.

Cost approach to pricing demands that the sale price be set in such a manner that the firm can earn a certain target return on investment, say, 20 per cent.

Example

A.B. Ltd sold 5,000 air bags in 1993. It expects to sell the same number in 1994. Fixed cost allocated to this line are Rs. 5 L. Variable costs per unit are Rs. 12. Total investment for manufacturing, marketing and supporting this line of products is Rs. 15 L. Twenty per cent return on investment (ROI) is desired. To get the rupee return on investment: (ROI)

Rs. 15 L × 0.20 = Rs. 3 L (return on investment).

Total Fixed Costs + Target ROI = Rs. 5 L + Rs.3 L = Rs. 8 L.

Target ROI per Unit - 8 L/5,000 = Rs. 16 per Unit.

Therefore, price to a dealer which will give 20 p.c. ROI will be Rs. 12 (Variable cost per unit) + Rs. 16, *i.e.,* Rs. 28 per unit. At this price, the firm is assured to get 20 p.c return on investment. Hence, the dealer will fix his sale price at Rs. 28 per unit and he will get 20 p.c return on investment. The mark-up added to costs is determined by rate of return objective. To adapt the break-even point model to target rate-of-return pricing, we have simply to add the required profit figure to the fixed cost. This will give a new break-even point which will indicate the sales volume in order to achieve the target return at each price alternative.

PRICING POLICIES

Price is an important element in the marketing mix. Arrival at the right selling price is essential in a sound marketing mix. Right price can be determined through pricing research and by adopting the test market techniques. A price policy is the standing answer of the firm to recurring problem of pricing. It provides guidelines to the marketing manger to evolve appropriate pricing decisions. If competition is mainly on a price basis, then each marketer generally prices its products at the same level as its competitors. If there is non-price competition, each marketer chooses from among the three alternatives:

1. Price in Line (Pricing at the Marketing): The sale at current market price is desirable under free competition and when a traditional or customary price level exists. It is preferable when product differentiation through branding is minimum, buyers and sellers are well-informed, and we have a free market economy. Under such conditions price loses its importance as a weapon of competition and sellers have to adopt other means of non-price competition, *e.g.*, branding, packaging, advertising, sales promotion, credit, etc., to capture the market.

2. Market-Plus (Pricing above the Market): The sale above the market prices under free competition is profitable only when your product is distinctive, unique and it has prestige or status in the market. Customer is inclined to put a greater value on the product if the package is very good or the brand is well-known. Otherwise, it will be a killing price policy, specially if the customer is price-conscious. Reputed brands have higher prices. Price of a product is associated with value, quality, durability, performance, service after sale, credit, and many other attributes. Product-differentiation through branding introduces monopoly element in pricing and established brands can afford higher prices without reducing volume of sales. In foreign countries, such as the U.S.A. and the U.K. almost all consumer goods are branded and large national concerns have used branding as an instrument of monopoly.

3. ***Market-Minus (Pricing below the Market):*** The sale below the market price, particularly at the retail level, is profitable only to large chain stores, self-service stores and discount houses. These large retailers can sell well-known nationally advertised brands 10 to 30 p.c, below the suggested retail prices, list prices or fixed resale prices by the manufacturers. If you have lower costs because your product is of inferior quality, you may have to fix lower price. Similarly, you may prefer a lower price without promotion expenses (which your rivals are undertaking on a large-scale). A lower price is a substitute for sales promotion and advertising. Prices of national brands are higher as there is heavy expenditure on advertising and sales promotion to maintain the brand loyalty.

Right Pricing: In the long-run, the best pricing policy in a competitive market is the market based method of pricing. It is safer to follow the prices of important competitors who dominate the market. Such a price policy will prevent price war, and assure normal profits.

Non-Price Competition: The seller should rely more on non-price factors to capture the consumer demand. At present in many countries business firms avoid price reduction as a means of competition. With or without price competition, increasing emphasis is being given on the various weapons of non-price competition. Non-price competition devices are: (1) Branding; (2) Attractive packaging; (3) Service after sale; (4) Liberal credit; (5) Free home delivery; (6) Money-back guarantee (return of goods); (7) Sales promotion; (8) Advertising; (9) Personal salesmanship; (10) Product improvements and innovations We can also consider indirect price competition when a seller offers certain benefits in the form of indirect price concession, *e.g.*, advertising allowance, free merchandising services, dealer training programme and so on.

Price is not the sole determinant of purchasing. Besides fair price, consumers demand better services, better quality and reliability, fair trade practices, personalised relation with sellers, quality guarantee, credit, etc. Non-price factors are important selling points, in addition to price. Non-price competition tends to increase as buyers put more stress upon fashion, variety, style, finish and service than of price.

Conditions Favouring Higher Prices: (1) Higher sales promotion expenditure is needed; (2) Production is as per order; (3) Initially small market share is preferred; (4) Sales turnover is slow; (5) Good many ancillary services are needed; (6) Goods are durable; and (7) Package is unique.

Conditions Favouring Lower Prices: (1) Little sales promotion is necessary; (2) We have mass production; (3) We are ready for mass distribution and we want larger market share; (4) Sales turnover is quick *i.e.*, fast selling is anticipated; (5) Very few or no additional services are needed; (6) There is no special package; and (7) We have perishable goods demanding quick clearance.

Skim-the-cream Price (High Pricing): A manufacturer introducing a new product may adopt this pricing strategy deliberately to build up the image of quality and prestige for his new product.

In the earlier stages of product life cycle, a strategy of high price associates with heavy expenditure on promotion, and at the later stage of the product life cycle, strategy of lower prices with normal promotional expenditure pays a rich dividend.

Reasons for Skimming Price Policy: There are a few reasons supporting skim-the-cream pricing for a new and unique product in its introduction stage: (1) In the initial stage, we have less elastic demand. Price is less important in purchase decisions. There are buyers who are not sensitive to price and they do not mind higher price. As the product is new and distinctive, there is little competition. (2) When entry of rivals is difficult, costs are uncertain, life-cycle is short, we should prefer skimming price. (3) Skimming price enables the firm to take the cream of the market, at a higher price and then it may attempt to appeal to sensitive sections of the market by adopting penetration, *i.e.*, lower price. (4) High initial price can provide a large margin which generates cash-flow easily and if the price is too high, it can be easily lowered. Reverse is not practical. (5) High initial price can keep demand within limit of your productive capacity.

There are two disadvantages of skimming prices: (1) It attracts competition. (2) If entry of rivals is easy, this policy is risky.

Penetration Pricing (Low Pricing): The approach is favourable under the following conditions: (1) Product has greater elasticity of demand. (2) Mass production provides substantial reduction in unit cost of production. (3) Very strong competition is expected soon after the product enters the market. (4) High income section of the population is not adequate. We have bulk of the population in the middle and lower income group.

Reasons for Low Pricing: When product has long life cycle, it has a mass market, entry of rivals into the market is easier and demand is elastic, penetration price is always preferable as rivals are discouraged to enter the market and you can establish a stronghold on the market share, incidentally making future entry of rivals difficult. The only disadvantage of this pricing is you may have excess demand within a short period.

One Price vs. Variable Price Policy

Under one price policy, a seller will charge all similar types of buyers exactly the same price and there will be no discrimination or difference among the buyers of the same commodity. There is no question of negotiation, bargaining or haggling. No favouritism is shown to any buyer. Terms of sale are the same for similar quantities of the product. Discounts and allowances are granted on equal terms to all buyers. It is a fair trade practice. It gains customer confidence. A fair and fixed price policy in line with the normal market price and providing for normal margin of profit is the best pricing policy. Through efficient management and best marketing mix, the manufacturers and dealers should bring down marketing costs and improve quality of services to the ultimate consumers. The consumers should be offered lower price and better quality under any normal pricing policy.

In the U.S.A. and other developed countries, particularly at the retail level, they have adopted one-price policy. In India and many other developing countries, sellers have usually variable-price policy, *i.e.*, prices are subject to negotiation and haggling.

Under variable-price or negotiated price policy, the seller will sell similar quantities to similar sellers at different prices. Certain favoured customers are offered lower prices. The terms of sale, *e.g.*: discounts and allowances, are granted on unequal terms to buyers. Especially in developing countries, sellers commonly use variable pricing for most consumer items. In retail trade the price discrimination is usual. A foam leather handbag was quoted by a well-known retailer at Rs. 60 in the first instance. The price was reduced to Rs. 50 and then to Rs. 40. On sensing that the customer was aware of its real price, the price was scaled down ultimately to Rs. 30 only.

Advantages of One Price Policy

(1) Seller can have flexibility in his dealings with different customers. (2) Lower selling costs, saving of time in sale as no question of price bargaining. Many a time, haggling drags on the sales talk and it is a time killer. (3) Customer confidence is secured. In the absence of a preferential price, there is no risk of losing of a

customer. Timid or weak bargainers are not at a disadvantage. The seller can maintain his goodwill. (4) It is eminently suitable for self-service retailing, mail order selling and automatic vending or selling. Large retailers follow this policy.

Advantages of Variable Price Policy

(1) Seller can have flexibility in his dealings with different customers. (2) Certain valuable customers can be offered lower price, *e.g.*, a promising large-scale buyer in the near future. (3) Flexible price policy enables to attract customers of other competitors and thus new business can be secured. (4) When the size of the transaction is larger, price should be negotiable, *i.e.* subject to bargaining, *e.g.*, sale of a motor car. (5) The sellers of consumer durables often adopt variable price policy. (6) Some buyers have greater bargaining power or they are able to pay cash. They will always insist on negotiated price.

On the whole, one-price policy is the best policy. Variable price policy creates ill-will and spoils the seller's reputation. It can lead to a price war and unhealthy competition. Managerial control is also less on selling cost and on profits. It reduces confidence. It is not equitable.

Cost–plus or Mark–up Pricing

This method is considered the best approach to pricing. It is based on the seller's per unit cost of the product plus an additional margin of profit. There are four items in determining the sale price: (1) Cost of producing/acquiring goods. (2) Cost of operating/selling expenses. (3) Interest, depreciation, etc. (4) Expected profit margin—mark-up. The mark-up is indicated as a percentage of selling price is a very common practice particularly in retail trade.

Cost-plus price is very popular in retail trade and wholesale trade. Some form of customary mark-up pricing or cost-plus pricing is most practical in trade, as items for sale are innumerable.

Mark-up are expressed as percentages. The base used as 100% may be either cost value or sale value. Usually mark-up is always stated as a percentage of selling price.

1. When the mark-up is based on cost:
   Mark-up percentage based on cost

$$= \frac{\text{Rupee Mark–up} \times 100}{\text{Cost Price}}$$

2. When the mark-up is based on selling price:
   Mark-up percentage based on sale price

$$= \frac{\text{Rupee Mark–up} \times 100}{\text{Selling Price}}$$

Illustration

Cost price of a transistor radio	=	*Rs. 400*
Mark-up decided by the seller	=	*Rs. 100*
Selling Price	=	*Rs. 500*
Mark-up % based on cost price = 100/400	=	*25%*
Mark-up % based on sale price = 100/500	=	*20%*

If we know the rupee cost and the desired percentage of mark-up, we can easily calculate our sale price.

A dealer buys an article for Rs. 90 and he knows he should secure 40% mark-up.

	Rs.	%
Selling Price	–	100%
Cost	90	–
Mark-up	–	40%

It is quite clear that percentage figure cost is: 100% - 40% = 60%.

Thus, as Rs. 90 is equal to 60% of the sale price, the sale price will be Rs. 150 (Rs.90/0.6 or 60%).

Mark-up are always calculated on the selling price at each level of business in a channel of distribution.

Illustration

Retailer's sale price	*Rs. 200*	*Retailer's mark-up*
Retailer's cost	*Rs. 120*	*Rs. 80 or 40%*
Wholesaler's sale price	*Rs. 120*	*Wholesaler's mark-up*
Wholesaler's cost	*Rs. 100*	*Rs. 20 or 16.66%*
Manufacturer's sale price	*Rs. 100*	*Manufacturer's mark-up*
Manufacturer's cost	*Rs. 70*	*Rs. 30 or 30%*

Thus producer's price is Rs. 100 per unit, whereas consumer's price is Rs. 200 and the difference of Rs. 100 per unit is accounted by retailer's mark-up of Rs. 80 and wholesaler's mark-up Rs. 20 per unit.

Mark-ups are usually calculated on the sale price. We should note the relationship between mark-ups on cost price and mark-ups on sale price.

1. % mark-up on sale price $\frac{\text{\% mark–up on cost price}}{\text{100\% + \% mark–up on cost price}}$

2. % mark-up on cost price $\dfrac{\text{\% mark–up on sale price}}{\text{100\% + \% mark–up on sale price}}$

Illustration

1. Retailer has 25% mark-up on cost. Then:

$$\textit{\% mark-up on cost price} = \frac{25\%}{100 + 25\%} = 20\%$$

2. Retailer has mark-up of 33.33% on scale price. Then:

$$\textit{\% mark-up on cost price} = \frac{33.33\%}{100 - 33.33\%} = \frac{33.33\%}{66.66\%} = 50\%$$

Cost price = Rs. 60	*The mark-up is 40% on the sale price, but 66.66% on the cost price.*
Sale price = Rs. 100	
Mark-up = Rs. 40	

MARK-UP RELATIONSHIP IN COST-ORIENTED PRICING

Relationship	*Manufacturer*	*Wholesaler*	*Retailer*
1. Cost	20/-	24/-	30/-
2. Mark-up	4/-	6/-	20/-
3. Selling Price	24/-	30/-	50/-
4. Mark-up on cost	4 / 20 = 20%	6 / 24 = 25%	20 / 30 = 67%
5. Mark-up on Selling Price	4 / 24 = 17%	6 / 30 = 20%	20 / 50 = 40%

Manufacturer's Price = Rs. 24/- Consumer's Price = Rs.50/-

When there are many middlemen between the producer and ultimate consumer, we have a wide price difference between the price paid by the consumer and that actually received by the primary producer. Each mark-up is bound to inflate the ultimate retail price.

DISCOUNTS AND ALLOWANCES

Discounts and allowances are price concessions offered to traders or buyers in the form of deductions from the list price or from the amount of a bill or invoice. They are forms of indirect price competition.

The common forms of discounts and allowances are:

(1) Trade discount, (2) Cash discount, (3) Quantity discount, (4) Seasonal discount, (5) Promotional discount, (6) Advertising and display allowances, (7) Freight allowances.

We will now describe some of the important discounts and allowances.

Trade Discount

Trade discount is a kind of functional discount. It is given to the buyers buying for resale *e.g.*, wholesaler or retailer, in payment for marketing functions which these traders are expected to perform. Sellers quote price less discount rather than net price.

Illustration

A manufacturer feels that Rs. 10 per unit of his product can be a fair retail price. The manufacturer's list price is Rs. 120 per dozen. He quotes trade discount at 33.33% and 15% from the list price. This indicates that the wholesaler pays Rs. 120 less 33.33% (Rs. 40) less 15% of Rs. 80 (Rs. 12) or Rs. 68 for one dozen items. In selling to the retailer, the wholesaler retains 15% which is his margin to cover his expenses and profit. The wholesaler will quote Rs. 120 less 33.33% or Rs. 80 per dozen on the retailer. Thus, the retailer also has a margin of 33.33% to cover his expenses and profit and he can sell the product at the list price or suggested retail price, viz., Rs. 120 per dozen or Rs. 10 per unit. Please note that 33.33% and Rs. 15/- do not constitute a total of 48.33% off the list price. Each trade discount percentage in the chain is calculated on the remaining amount after the preceding percentage has been deducted.

Purposes of Trade Discount

1. Trade discount provides the cover for expenses and profit of each middleman in the chain of distribution, when the manufacturer fixes the retail price and it is advertised and printed on the packages. It is a remuneration for marketing services rendered by the traders. It is paid only to the resellers.

2. The catalogue or price list has printed prices. Actual market price may be fluctuating. If the actual price changes, the seller merely change, the rate of discount for adjustment of the two prices list price and current market price. He need not print a new price list or catalogue. These are revised periodically, *e.g.*, once in three months. Trade discount is altered inversely to change in prices, *i.e.*, falling prices will invite rising discounts, and vice versa.

3. The trade discount can also act as a weapon of price competition. It makes price structure flexible. The seller can offer a larger trade discount to attract business from the rivals. The dealer is enabled to sell to consumers at a price even lower than the list price as he is given a higher discount. The dealer can show the price even lower than the list price as he is given a higher discount. The dealer can show the price list to the consumer and point out that he is getting a good bargain.

Limitations of Trade Discount

1. The manufacturer may offer a larger trade discount to the wholesale and retailer so that they do a better selling job and take greater interest in his products. But the traders may pass on the additional margin to their customers in the form of price reductions rather than using it for additional sales promotion efforts.

2. The increased discounts given to the traders may lead to unhealthy competition and competitors may follow the initiator by raising their trade discount. So ultimately there may not be any real gain. In fact, it may result in cut-throat competition.

Cash Discount

It is merely a rebate or a concession given to the trader or consumer to encourage him to pay in full by cash or cheque within a short period of the date of the bill or invoice. It is a deduction from the amount of the bill or invoice amount to be paid, the period to avail the cash discount is usually 10 days.

Illustration

The wholesaler quotes to the retailer as a term of payments "2% 10 days, net 30." This indicates that if the invoice amount is paid within 10 days he will get a rebate of 2% but if he pays after 10 days and of course, within 30 days, he has to pay the net invoice amount without any rebate. It means if the retailer forgoes the cash discount, he has to pay 2% price for 20 days accommodation, or in effect he has to pay 36% interest per year. The retailer would prefer to borrow from his bank at 18% and pay the wholesaler cash within 10 days of the invoice. In the absence of bank credit, trade credit may be inevitable.

Purpose of Cash Discount: (1) The wholesaler need not have a larger working capital as he need not sell on credit to the retailer. (2) There is relief in the recovery of debts and no danger of bad debts. To the seller cash sales are always welcome. In practice, trade credit becomes necessary, as a lesser evil.

Cash discount is calculated on the net amount due after first deducting trade and quantity discounts from the initial list or catalogue price. It is a percentage reduction on the net amount due.

Quantity Discount

In order encourage a customer to make bulk or large purchases at a time or to concentrate his purchases with the seller, quantity discount may be offered to large buyers.

Quantity discount can reduce the prices for bulk purchase order. These may be even cumulative, *i.e.,* on the total volume of purchases made during a certain period. They are really patronage discounts.

Purposes of Quantity Discount: (1) Sales of slow moving items can be stimulated. (2) Manufacturer can have real economies in production as will as in selling. This will reduce his total cost. (3) The manufacturer will have no problem of accumulated stocks or inventories.

Seasonal Discount

The manufacturer may offer additional seasonal discount of say 5, 10, or 15 So to dealer or a customer who places an order during the slack season. This will ensure better use of his plant and production facilities.

Allowances

The manufacturer may offer promotional allowances, *e.g.*, advertising allowance, window display allowance, free samples, free display materials, free training in sales demonstration and sales talk, etc. It amounts to a price reduction of an equal amount of service expected.

Comments

1. Discounts and allowances are rarely given in selling to the ultimate consumers. They are offered to resellers only.
2. They are common in wholesale and retail trade — in the sale of manufactured good.
3. Such price concessions are good weapons of healthy competition and sales promotion.
4. If these price concessions are given to all dealers and merchants without discrimination there is no problem of ill-will in trade. But in practice, many a lime, they are not offered to all competing customers on *proportionally equal, terms*, in which case they are considered as unfair and unwise trade practices. In many countries, promotional allowances are controlled by law to ensure fair trading.
5. We also come across secret or confidential discounts given by manufacturers to preferred customers. These are given in highly competitive lines or especially during a trade depression.These are also undesirable and unfair trade practices. It is difficult to control these malpractices by legislation alone. Business itself must evolve a *code of conduct* to prevent such malpractices. Self-regulation and self-discipline are always superior than compulsory rule or forced discipline. Fair trading is now recognised as a social responsibility of the business.

Price Leadership

In every industry, we do have a few big and dominant business enterprises who act as leaders for setting the price by others. When the leader raises or lowers the price, all others usually follow the leader. The non-leading firms have no other practical alternative but to follow the leader in their price-fixing. In many consumer goods industries we do come across one or a few price leaders and the market price is dictated by them.

Psychological Pricing

It is used to create an illusion of a bargain. It is a popular practice of setting the prices at odd points *e.g.*, Rs. 17.95, Rs. 49.00, Rs.995, etc. This policy is followed usually in consumer goods industry, *e.g.*, Bata Shoe Company has psychological pricing in shoe prices. Prices of consumer durables such as cars, refrigerators, etc., are usually fixed in odd amounts: Such a pricing strategy is based on the belief that a buyer is mentally prepared to pay a little less than the rounded figure, *e.g.*, Rs. 10.85 instead of Rs. 11 for a product. Even prices create an impression that the product is of high quality. Thus pricing can create expected motivation.

Charging What the Traffic will bear

There are two principles, in pricing. One is called *"cost of service"* principle and another is called *"value of service"* principle. The second one is also termed as *charging what the traffic will bear*. It points out demand price. It is usually adopted by railways in our country. professionals like doctors, lawyers, chartered accountants, consultants, etc., adopt this principle of charging what the customer will bear. They charge their fees on the basis of *ability to pay* and the cost factor is secondary in their charges. In business, particularly in commodity markets, we do not have such a price discrimination based on the customer's ability to pay. A monopolist, of course, can afford to adopt this principle to maximise his profits. In a sense, such pricing renders justice to customers. Dual pricing of sugar in India is based on this principle of ability to pay. Electricity company also has different rates for domestic and industrial customers.

Resale Price Maintenance (R.P.M.)

Resale price maintenance or R.P.M. is a marketing policy adopted by one or a group of manufacturers. It is also called fair trading. R.P.M. agreement between the manufacturers and dealers under which all retailers are bound to sell the branded goods at a certain fixed retail price and no retailer shall sell the branded product *below* the fixed resale price to the ultimate consumers, even though he may be able to sell at a lower price due to his lower operating costs. The concept of R.P.M. is prohibited under M.R.T.P. Act.

POINTS TO REMEMBER

1. **Objectives of Pricing :**
    - *(a)* Growth in sale.
    - *(b)* Market share.
    - *(c)* Predetermined profit level.
    - *(d)* Meet or follow competition.
    - *(e)* Controls cash flow.

2. **Steps in price determination process :**
    - *(a)* Market regimentation.
    - *(b)* Estimate of demand.
    - *(c)* Market share.
    - *(d)* Marketing mix.
    - *(e)* Estimate of cost.
    - *(f)* Pricing policy.
    - *(g)* Pricing strategies.
    - *(h)* Price structure.

3. **Pricing Policies :**
    - *(a)* Price line (Pricing at the market).
    - *(b)* Market-Plus (Pricing above the market).
    - *(c)* Market- Minus (Pricing below the market).
    - *(d)* Skim the cream pricing.
    - *(e)* Penetrating pricing.
    - *(f)* One price vs variable price policy.
    - *(g)* Discount and allowances : trade discount, cash discount, quantity discount, seasonal discount.
    - *(h)* Psychological pricing.
    - *(i)* Changing what the traffic will bear.
    - *(j)* Resale price maintenance.

STUDY QUESTIONS

Part - A (16 marks)

(2 marks questions — answer in 4 lines)

1. What is price? ***(B.U. Apr. '99)***
2. What is market price?
3. What is base price?
4. What is break-even chart?
5. What is return on investment?
6. What is price policy?
7. What do you mean by penetrating price?
8. What is one-price policy?
9. What is variable price policy?
10. What is skimming the cream price?

11. What do you mean by price in line?
12. What do you mean by mark-up pricing?
13. What is trade discount?
14. What is quantity discount?
15. What is cash discount?
16. What do you mean by retail price maintenance?
17. What is price leadership?
18. What do you mean by psychological pricing?

Part-B (24 marks)

(8 marks questions — answer in 30 lines each)

1. Briefly analyse the importance of pricing a product.
2. Briefly analyse the typical pricing objectives.
3. Analyse the forces influencing price decision.
4. Analyse the importance of break-even chart as a powerful tool in determining price for the product.
5. Explain the different pricing policies.
6. Compare and contrast one price policy vs. variable policy.
7. Give an analytical note on different types of discount.
8. Give a note on Retail Price Maintenance.

Part-C (60 marks)

(Answer in 3 pages — 15 marks each)

1. Describe the various internal and external forces that influence the pricing strategy of a firm.
2. Explain the different methods of pricing adopted by the firms
3. Discuss the importance of pricing in a marketing programme. What are the typical pricing objectives?

6

PROMOTION

Developing Effective Communications – Promotion Mix – Sales Promotion Objectives and Programmes

Broadly speaking promotion means to push forward or to advance an idea in such a way as to gain its acceptance and approval. Promotion is any communicative activity whose main object is to move forward a product, service or idea industries, a channel of distribution. It is an effort by a marketer to inform and persuade buyers to accept, resell, recommend, or use the article, service or idea which is being promoted. Promotion is a form of communication with an additional element of persuasion. The promotional activities always attempt to affect knowledge, attitudes, preferences and behaviour of recipients, *i.e.,* buyers. The element of persuasion to accept ideas, products, services, *etc.,* is the heart of promotion.

In any exchange activity, communication is absolutely necessary. You may have the best product, package and so on. It may have fair price. But people may not buy your product, if they have never heard of it, and they are simply unaware of its existence. The marketer must communicate to his prospective buyers and provide them adequate information industries a persuasive language. People must know that the right product is available at the right place and at the right price. This is the job of promotion in marketing. Sales do not take place automatically without promotion or marketing communication, even though our product is superb, it can precisely fill the consumer wants, and we have appropriate channels for distribution. In essence, promotion is the spark plug in our marketing mix. It is said that "nothing happens until somebody promotes something." Promotion is the third element of marketing mix and it is an important marketing strategy. It fulfils the marketers' need to communicate with consumers.

What is Promotion ?

Promotion is the process of marketing communication involving information, persuasion and influence. Promotion has three specific purposes. It communicates marketing information to consumers, users and resellers. It is not enough to communicate ideas. Promotion persuades and convinces the buyer and enters into this consumer behaviour. Promotional efforts act as powerful tools of competition providing the cutting edge of its entire marketing programme. Promotion has been defined as "the coordinated self-initiated efforts to establish channels of information and persuasion to facilitate or foster the sale of goods or services, or the acceptance of ideas or point of view." It is a form of non-price competition.

Essentially promotion is persuasive communication to inform potential customers of the existence of products, to persuade and convince them that those products have want satisfying capabilities. Consumers really speaking buy a bundle of expectations (a package of utilities) to satisfy their economic, psychosocial wants and desires. The promotion offers the message, *viz.*, the communication of these benefits to consumers. Hence, promotion message has two basic purposes: (1) persuasive communication, (2) tool of competition. Promotion is responsible for awakening and stimulating consumer demand for your product. It can create and stimulate demand, capture demand from rivals and maintain demand for you; products even against keen competition. Of course, it is taken for granted that your product has the capacity to satisfy consumer expectations and can fill their wants and desires. It is a truism that nothing can be sold and nothing can make money (except mint) without some means of promotion.

Marketers have adopted a communication view of their firms' promotional activities. Receiver is now regarded as an active participant in the process of communication. All marketing communications must be planned as part of a total system, not as independent pieces. The communication or promotion mix includes four ingredients, *viz.*: (1) advertising, (2) publicity, (3) personal selling, and (4) all forms of sales promotion. All marketing communications or forms of promotion try to influence consumer's attitudes, beliefs, ways of living or life style, values and preferences towards a company and its products, and thereby influence his/her behaviour.

1. ***Advertising:*** It is defined as any paid form of non-personal presentation and promotion of ideas, goods and services by an identified sponsor. It is impersonal salesmanship for mass selling, a means of mass communication.

2. ***Publicity:*** It is non-personal stimulation of demand for a product, service or a business unit by placing commercial significant news about it in a publication or obtaining favourable presentation of it upon radio, television, or stage that is not paid for by the sponsor.

3. ***Personal Selling:*** It is the best means of oral and face-to-face communication and presentation with the prospect for the purpose of making sales. There may be one prospect or a number of prospects in the personal conversation.

4. ***Sales Promotion:*** It covers those marketing activities other than advertising, publicity and personal selling that stimulate consumer purchasing and dealer effectiveness. Such activities are displays, shows, exhibitions, demonstrations, and many other non-routine selling efforts at the point of purchase. Sales promotion tries to complement the other means of promotion given above.

All kinds of promotion play the role of communication channels between the marketer (the source and the sender of message) and the consumer (the receiver of the message). Promotion as an element cuff marketing mix has three broad objectives: *(a)* information, *(b)*

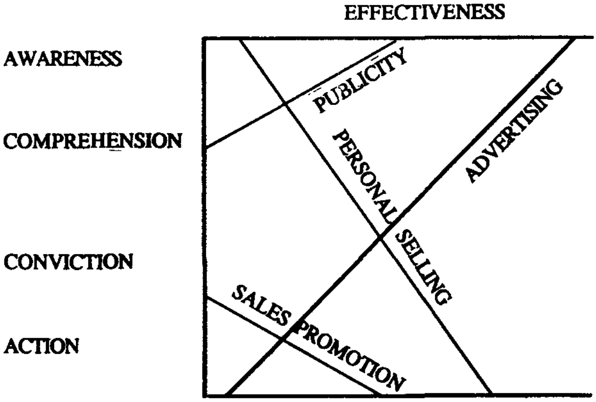


Fig. 6.1 Promotion Mix during the Selling Process

persuasion, *(c)* reminding. The overall objectives of promotion is, of course, influencing the buyer behaviour and his predispositions (needs, attitudes, goals, beliefs, values and preferences).

Comments

> Four promotion mix elements have a definite role in all stages of the selling process. Publicity is more effective in the awareness stage. Advertising gradually becomes less and less effective over a time span. Hence, reminder advertisement is necessary. Personal selling becomes more and more effective as interpersonal interaction. Product demonstration acts as sales promotion tool at the point of purchase in order to provide additional incentives for buyer's action.

The Process of Communication in Marketing

The word 'communication' is derived from the Latin communis which means 'common'. We attempt to communicate, that is, to establish a 'commonness' with another person. There are three essential parts of communication, *viz.*, the source, message and receiver. True communication takes place only when the message means the same thing (in common) to both the parties *i.e.*, the sender of the message and its receiver.

Marketing communication involves sharing of meaning, information and concepts by the source and the receiver about products and services and about the firm selling them. Marketing communication is undertaken by marketers through the devices of promotion *viz.*, advertising, publicity, salesmanship and sales promotion. We have also word-of-mouth communication to accelerate the spreading over of marketing communication.

The effective communication occurs when a sender (source) sends a message and a receiver responds to the message in a manner which satisfies the sender. Both must have identical meaning of the message.

Effective communication is equal to receipt of the message plus understanding plus acceptance plus action. In marketing, action means decision to purchase.

Elements of Communication

1. ***The Source :*** A marketing company, a sender of message.

2. ***The Message :*** The commercial idea, sales story.

3. ***The Channel :*** The vehicle carrying the message, a salesman, an advertising medium, sales literature sent through the mail. Telephone, postcard, radio, or television, newspaper, *etc.*, can also act as the channel of promotion.

4. ***The Receiver :*** A person or a group of persons; the receiver is a potential customer, purchase influencer or a reseller.

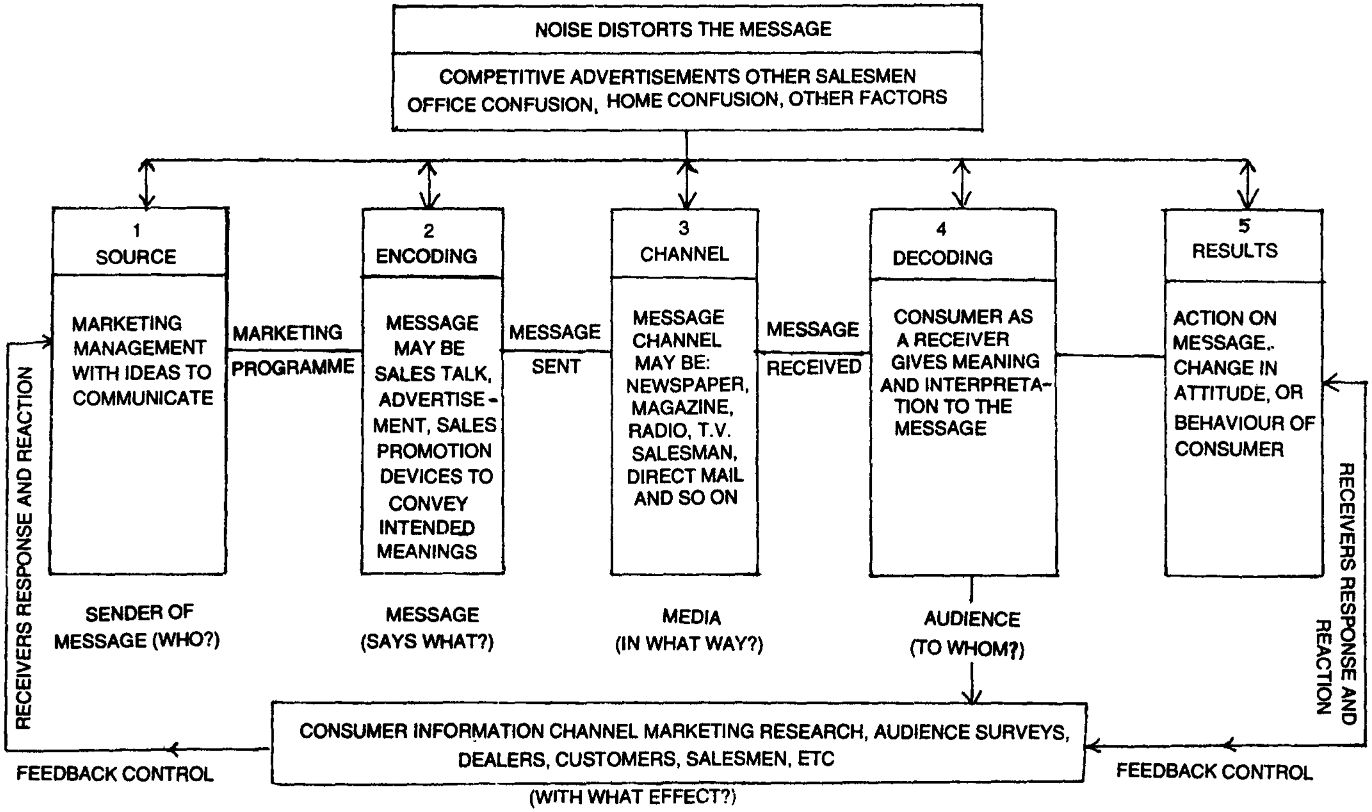


Fig 6.2 A Marketing Communication Modern.

*5. **The Feedback :*** A response, a reaction or message sent back by a customer to the marketer. The feedback improves the effectiveness of communication.

*6. **The Noise :*** Noise creates many obstacles reducing effectiveness of the communication process.

In marketing management, the source or communicator is the marketer who desires to promote his product. He attempts to deliver a message to a receiver. He can deliver the message in many ways. All forms of promotion are media or channels of communicating or sending the message. The receiver or audience is the target market segment, *i.e.*, the group of consumers for whom the message is sent. Message is received and interpreted by consumers and if their predispositions become favourable, they decide to purchase. Feedback is the reverse flow of communication from the consumer to the marketer.

When the message is transmitted through personal salesmanship, the seller may have prompt feedback from the receiver. The sender can find out how the message is being received as we have face-to-face direct communication through sales talk and conversation. The salesman can balance the message on the basis of feedback from the buyer. This is the real advantage of personal selling. Personal interaction is the most efficient form of communication. Under mass communication or advertising, mass sellers must rely for information feedback (returned message from buyer) on dealers, consumerism, complaints from consumers, marketing research or total sales results given through sales analysis. Mass communication is essentially one-way communication. Feedback is difficult and usually delayed. Consumer surveys, electronic devices, and other types of marketing research are used to get the feedback. However, this feedback is delayed and it is of no use in altering a message already sent. Of course, it is useful in altering the future advertising message.

Distortion and Noise in the Promotion Channel

Marketing communication may be distorted particularly when a message passes through a number of channels. Noise is a more serious problem. It can arise due to faulty transmission, faulty reception, or interference. Competitive communications constitute the most serious noise. A consumer may be tuned to many communication flows (advertisements) at the same time.

Promotion Messages

The message transmitted through all forms of promotion must describe the product features in terms of customer wants and desires. The problem-solving or need-satisfaction approach is better while transmitting the message. It develops better understanding of customer needs and problems. Remember that customers are buying bundle of benefits. The promotion message must communicate effectively these benefits to consumers. Hence, promotion message must achieve two basic objects: Communication and persuasion. For effective communication, sender and receiver must have a common background of experience, *e.g.*, a common culture, common language so that they will be able to symbolise certain ideas, concepts and events in a manner easily understandable to each other. The following diagram shows the common or overlapping field of experience of sender and receiver in the process of communication.

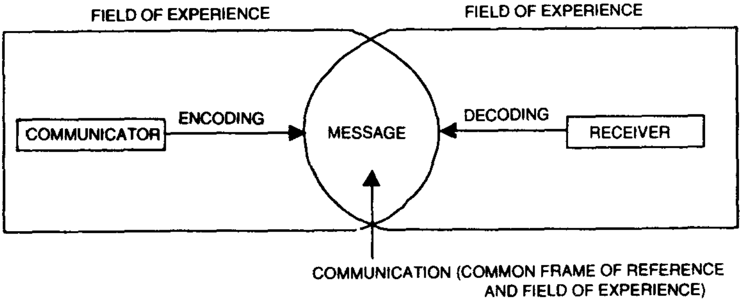


Fig. 6.3 How Communication Works

Meaning attached to the various words, ideas and symbols may differ when sender and receiver of the message do not have common frame of reference and common fields or background of experience. In absence of such an overlap, absence of overlap is the communication of product benefits in French or Japanese language to a villager in India or any other developing country at present. Communicator may be stressing the benefits in which receivers are not interested at all. In that case there will be a communication barrier leading to bad communication.

Promotion by definition is persuasive communication. The message is arranged to facilitate the consumer's decision-making process (awareness, knowledge, liking, preference, conviction and action). Promotion message is one source of information (though very important) at the disposal of a buyer. The buyer behaviour is influenced by many other sources of information available from many sources. If promotion message is useful, relevant and credible, the buyer will be influenced and persuaded to take action as desired by the marketer or communicator.

Unfortunately, we come across fraudulent, deceitful and misleading promotion message. The innocent consumer, relying, on the promotion message, purchases the product but very soon he discovers the dissonance and frustration in his post-purchase experience. Without satisfaction, repurchase and consumer loyalty will be impossible; on the other hand, word of mouth communication will act as anti-advertisement.

The Message Form: We have spoken and written words, picture and music. Communication involves transmission of ideas, not merely words. Message need not always be translated into the language. There are other ways for transmission of ideas. A picture communicates a message very effectively. Any visual, nonverbal media can attract attention. Visual contact is stronger and longer than a word contact. Picture permits easier association for the viewer. Spoken word is also an effective communication tool. Music contributes to effective communication. Hence, television is the perfect advertising medium.

Main Purpose of Promotion

The overall purpose of promotion is to influence buyer behaviour and alter the location and shape of the consumer demand curve in favour of the products. All promotional efforts, *i.e.*, marketing communications are directed to alter the demand curve or buyer behaviour. The following figure demonstrates the effect of promotion on the demand curve.

1. Larger quantity QQ2 sold at the same price OP1
2. Same quantity QQ1 sold at the higher price OP2

Promotion tries to alter demand curve to the right (from D1 to D2). Thus, promotion is employed to retain the price and secure increasing sales at the same price. Promotion can also raise the price but retain the sales level by making the demand relatively inelastic *e.g.*, through creating brand loyalty and patronage by intensive advertising and sales promotion. Either through shifting the demand to the right or making the demand more inelastic, the object of higher sales revenue can be accomplished with the help of persuasive marketing communications. In short, all forms of promotion can act as the best means of non-price competition, and without any change in the price, marketers can succeed in influencing to a certain extent the buyer behaviour and partially exercise control over demand and market without using the weapon of price to meet competition.

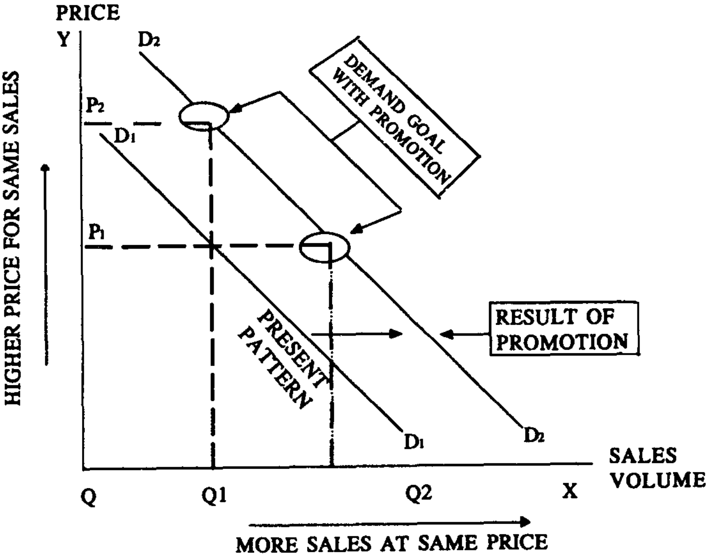


Fig. 6.4 Influence of Production on Demand

The favourable change in the pattern of consumer demand is secured through commercial information, persuasion and influence with the help of personal selling, advertising, publicity and sales promotion devices.

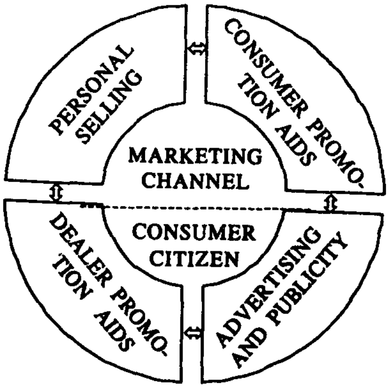


Fig. 6.5 Promotion Mix

Note:

1. Each tool of promotion is a vehicle or medium of communication in the field of marketing management.
2. The marketer as an artist creates the most favourble blend of all promotion elements to influence buyer behaviour and the process of decision-making in purchases. Thus, sales can be promoted through a promotion campaign.

Is there a Promotion Opportunity? There are five conditions indicating favourable opportunity to promote: (1) favourable trend in demand, (2) strong product differentiation, (3) hidden product qualities, (4) emotional buying motives, (5) adequate finance to promote.

Social Aspects of Promotion

Promotional strategies may adversely influence the social and political environment. Marketers may succeed to bend demand to adapt itself with supply, *i.e.,* product offering. But the marketing activities may aggravate the social problem *e.g.,* media control, waste disposal, general welfare, deceptive advertising practices, high pressure salesmanship, misleading packaging and labelling, monopolistic or restrictive marketing practices, and so on.

When the product fulfils the needs of private consumption at the cost of general welfare, *e.g.,* cigarettes or liquor, the criticism against promotion is greatest. Consumer advocates also point out that non-price competition through promotion involves additional waste of expenditure and ultimately the consumers have to bear the cost of promotion through higher prices. In the end consumers are forced to pay for all promotion expenses.

As long as promotion means right information and persuasion, it is tolerable and also justifiable. But when informing and persuading become deceiving, consumerism and government agencies can challenge such promotion. Consumerism has been pressing for more and more informative and less and less persuasive marketing communications. The best example of misleading promotion is puffery in advertising—superlative advertisements. Similarly, sexist advertisements are objected seriously by organizations of the fairer sex. Many sales promotion gimmicks are considered to demoralise the market.

Promotion devices should not mislead the average consumers, abuse the findings of research, manipulate consumer behaviour and market conditions. They must be accurate, credulous and fair in making comparisons with the products of rivals.

The Promotion Process *(Persuasive Communication)*

Buyers welcome persuasive communication provided persuasion does not amount to coercion. Coercion is criticised by consumerism. It compels people to do exactly according to the marketers' directions. Buyers can be induced to visit a store, listen to radio commercials, watch television jingles, read magazines and newspaper advertisements or actually write to the firm for more information.

The individual potential buyer is induced to pass through several stages on his way to buy a product or favour a seller. The AIDA formula proposed these stages as: (1) Awareness (attention), (2) Interest, (3) Desire, and (4) Action. The adoption process proposed these stages as: (1) awareness, (2) interest, (3) evaluation, (4) trial, (5) adoption. The hierarchy of behavioural effects on the consumer decision-making process has these stages as: (1) awareness, (2) knowledge, (3) liking, (4) preference, (5) conviction, and (6) action.

Promotion is a systematic attempt to move forward step by step prospects from a stage of unawareness to awareness, then to knowledge and liking, then to preference and conviction and finally to purchase action or a behavioural response.

Broadly speaking, we can think of three distinct kinds of consumer response to promotion (l) awareness and knowledge emphasizing *cognitive response,* (2) changes attitudes, emphasizing *affective response* (consumer moving from cognition to liking and preference) and (3) new behaviour including *motivational response* (moving to conviction and action, *i.e.,* purchase decision).

The marketer must remember that communication accomplishes its objectives in a series of mental stages as the receiver or audience moves from awareness to actual purchase. Several messages through several channels necessary in order to complete the process of promotion. The purpose of communication must be made clear before deciding most desirable messages and media. Then again, the marketer must be aware of the fact that his promotion is only one persuasive influence operating among many other influences in a total situation. All marketing communications try to influence predispositions (attitudes, beliefs, values, goals, *etc.)* of buyers toward the firm and its products. No communicator writes on a clean slate. The marketer is reminded that predispositions of buyers already exist. He has to change these in his favour. Marketing communications cannot be planned without knowing something about existing buyer behaviour or his inclinations or predispositions. Marketers must know their audience thoroughly. Buyer's predispositions and behaviour are governed by the socio-economic, demographic and personality characteristics. The social groups and culture also influence the buyer behaviour. The receiver is an active participant in the promotion process. The receiver assigns the meaning to the message according to his predispositions. The attitudes and beliefs are learned from experience and the receiver tends to act toward a particular object in the environment in a particular way. Hence, perceptions and attitudes of the receiver will determine his behaviour and action toward a company and its products. Please note that response to promotion is subjective and it entirely depends upon the mental frame and satisfaction of the receiver of the message. Each receiver finds his own meanings to the messages sent by marketers. Please note that a listener/reader viewer is essential to communication. The consumer/ user is the key to the whole exercise of communication. The consumer will accept communication which will interest him.

Promotion Strategy

Strategy lays down the broad principles by which a company hopes to secure an advantage over competitors, exhibit attractiveness to buyers, and lead to full exploitation of company resources.

When marketers resort to promotion or persuasive communication in marketing, we have a kind of the promotion square. It has four sides of equal importance, *viz.*: (1) The product described in the marketing communication. (2) The prospect to be converted into a customer through persuasion and influenced by promotion. (3) The seller or the sponsor who undertakes promotion, and (4) The channel or the route along which the product will move from the marketer to the buyer.

The promotion strategy will depend upon these four sides. The promotion strategy deals with the following decisions: (1) the blend of promotional activities (advertising, publicity, personal selling and sales promotion), (2) the amount allocated for the various forms of promotion particularly to the advertising media such as press, radio, television, and so on, (3) the kind of promotion to be used. Each kind of promotion has strengths and weaknesses as a communication medium. Each mode of promotion depends on the nature of the products, characteristics of the market, stage of market development and stage of the buyer's decision-making. These unique strengths and weaknesses must be duly recognised while designing the promotion (communication) mix. Then again we have also interactions among the various forms of promotion. These interactions determine the total promotion effectiveness. The interdependencies of all kinds of promotion demand an integrated approach to promotion or marketing communication strategy.

1. The Product: The product is one of the factors determining the form of promotion. Toys are effectively shown on television. Press advertisements are unsuitable for children. Mass selling consumer goods can be easily promoted through radio and television advertising. Industrial and speciality goods should be promoted through technical journals and through sales engineers.

2. The Buyer: If the marketers are to provide realistic solutions to the problem of buyers, they must know their customers, their needs and desires, their attitudes, values, aspirations and expectations. Hence, marketers must have up-to-date information about consumer demand and consumer behaviour.

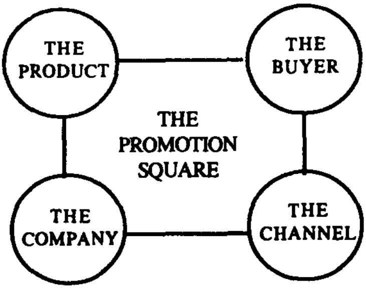


Fig. 6.6 Promotion Square.

3. The Company: The firm has a unique public image in the market. The firm's image must be closely associated with promotional strategy so that its goodwill can be exploited. Corporate advertisements usually emphasize more on the characters, reputation, reliability and responsibility of the marketing firm. Source credibility in promotion plays a very important role in making promotion believable to the receiver. Effectiveness of communication depends upon the firm's image in the market. When the perceived risk in buying a product is higher, the source credibility is an important factor in purchase decisions. A credible or trustworthy source produces much greater change in buyer's predisposition than one that is not credible.

4. The Channel Choice: The promotional strategy also depends on the channel or route through which products of the firm flow to consumers. There are pull and push strategies in promotion. Pull strategies depend upon mass communication. Products are literally pulled by buyers through the channels on the basis of mass promotional efforts. In a pull strategy the product is pulled through the channel by creating end-user demand. Customers force retail shops to stock products from wholesalers. The firms have well-known brands that can exercise control over channels through pull promotion strategies. Personal salesmanship plays a secondary role in pull promotion. Marketer rely on intensive distribution. Dealer margins are also lower in pull promotion.

A pull strategy is also called a suction strategy. Extensive and heavy use of advertising and sales promotion would be necessary to generate consumer demand. There is less emphasis on personal selling at all stages of the marketing channel. Small firms are unable to depend entirely on advertising and sales promotion, because large investment is involved due to emphasis on advertising and sales promotion. A push strategy is called a pressure strategy. It places heavy emphasis on personal selling.

Industrial marketing strategies are mostly the push type strategies relying primarily on personal selling. In the sale of medical products and in life insurance, marketers have to use large number of sales-people to call on physicians and prospects for life insurance. In push type promotion, personal selling expenses are considerable and dealer margin is also higher. In push type promotion, after sale service is also important. In push type promotion, marketers rely on selective distribution. Push strategy can be successfully used when: (1) we have a high quality product with unique selling points, (2) we have a high priced product, and (3) we can offer adequate incentives (financial) to middlemen and their salesmen.

Most consumer goods manufacturers generally employ a push pull (combination) strategy to sell their products. The ratio of pull to push may differ according to the requirements of market situation. Salesmen are used to push the goods through the marketing channel, while advertising and sales promotion will support personal selling to accelerate sales. Thus, all tools of promotion work together.

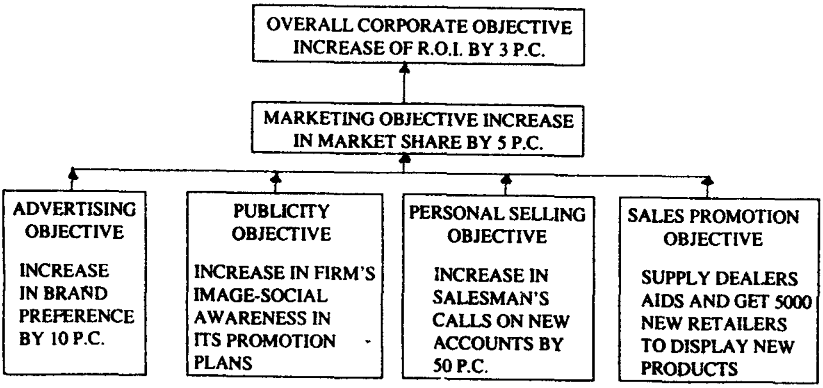


Fig. 6.7 Hierarchy of objectives for the Promotion Mix of the Marketing Programme of a Firm.

Note:

1. There are three specific purposes of promotion: *(a)* to communicate, *(b)* lo convince, and *(c)* to compete. Ideas (communicated) must convince enough the consumer to take the desired action. Promotion is the vital tool of giving competition.
2. A good product, an efficient channel, and an appropriate price will not be enough. A strong promotional element in the marketing strategy alone can carve out a market niche and create a differential advantage for your products. The competitive character of promotion defines its vital role in marketing programme (for increasing the market share).

SALES PROMOTION

Sales promotion is an important instrument in marketing to lubricate the marketing efforts. Today, sales promotion is a necessity and not merely a luxury or a fashion. It is not an expenditure; it is an investment which can pay rich dividends. It is an integral part of the marketing effort.

What is Sales Promotion?

Sales promotion is referred to activities other than personal salesmanship; advertising and publicity, which stimulate consumer purchasing and dealer effectiveness, *e.g.*, displays, exhibitions and showrooms, demonstrations, free samples, coupons, premiums and various other non-recurrent selling efforts not in the ordinary routine. It is a plus ingredient in the marketing mix, whereas advertising and personal salesmanship are essential and basic ingredients in the marketing mix.

In short, sales promotion is a bridge or a connecting link covering the gap between advertising and personal salesmanship, the two wings of promotion.

The manufacturer or wholesaler may have a good product, reasonable price, attractive package, *etc.* He may have a good sales force. He may have spent a lot on advertising. Even then he knows that the product may not sell by itself. He can get orders from dealers or retailers. But many more things than orders are required to be achieved. The sale of the product has to be promoted through a number of influences at the place where retailers and prospective buyers meet face-to-face, *i.e.*, at the point of purchase. In short, all prospective buyers must be attracted, urged and even persuaded to buy *your product.* Sales promotion is a vital link between advertising and field-selling. It aims at stimulating consumer purchasing at the point of sale and dealers' effectiveness at the retail channel of distribution, particularly because retailing is a highly competitive field.

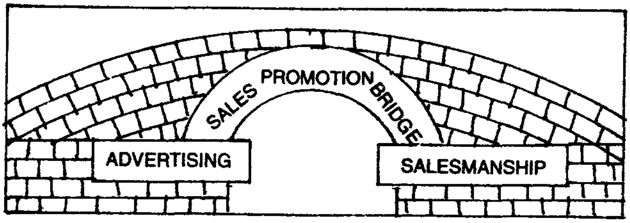


Fig. 6.8 Sales Promotion Bridge

Why use Sales Promotion ?

Sales promotion and publicity, when combined with advertising and personal selling programmes, really add up to more than the sum of the parts. Sales promotion is that *"something extra"* (2+2 = 5). It can arouse enthusiasm, create a buying mood or spark an immediate reaction from consumers, dealers and the firm's salesperson. Many sales promotion campaigns involve the use of incentives. Incentives are something of financial value added to an offer to encourage some obvious behavioural response. Sales promotion is often thought as special selling effort to accelerate sales. Point-of-purchase displays give a real off, sales rising by 25 to 50 per 'suasion' cent or even more.

Sales Promotion Objectives

Sales promotion has dual objectives: (1) to increase buying response by ultimate consumers, and (2) to increase selling efforts and intensity by dealers as well as by sales personnel. The result of an effective total marketing programme is sales success, which entirely depends on positive customer reaction and an intense, well organised selling effort by resellers and salespersons.

One study suggested the following reasons for undertaking actively all form of sales promotion: (1) calling attention to new products and product improvements, (2) informing buyers of new brand and new package, (3) improving market share, (4) increasing usage rate by present customers, (5) maintaining customer patronage and brand loyalty, (6) obtaining dealer outlets, (7) securing additional shelf-space and added display, (8) creating talking points for salespersons.

Strengths of Sales Promotion

(1) It stimulates positive attitudes toward the product. (2) It gives extra incentive to the consumer to make a purchase. (3) It gives direct inducement to take immediate action now rather than later. (4) It has flexibility and it can be used at any stage of a new product

introduction. Sales promotions are very effective: *(a)* when a new brand is introduced, *(b)* when we have to communicate a major improvement, increase our product, *(c)* when we want to amplify the results of the advertising, *(d)* when we want to increase the number of retail stores to sell our products.

Limitations of Sales Promotion

(1) Sales promotions have temporary and short life not exceeding three months. Sales promotion alone cannot build up brand loyalty. (2) Sales promotions are only supplementary devices to supplement selling efforts of other promotion tools. (3) They are non-recurring in their use. They have seldom reuse values. (4) Too many sales promotions may affect adversely the brand image, suggesting its lack of popularity or overstocking by a company. (5) Advertising agencies accord low status to sales promotions and usually employ junior staff for sales promotion so that they may be trained for more creative jobs. Sales promotion are ineffective: *(a)* when established brands have a declining market, *(b)* there are no product improvements, *(c)* when there is intensive competition on consumer sales promotion.

Kinds of Sales Promotion

There are two kinds of Sales Promotion: *(a)* Activities-intended to educate or inform the consumers and those intended to stimulate the consumers. These are called consumer sales promotion. *(b)* Activities to increase the interest and enthusiasm of dealers and distributors. These are called dealer/ distributor sales promotion devices.

Consumer Sales Promotion: These devices are: (1) Sampling, usually called consumer sampling. Free samples are given to consumers to introduce a new product or to expand the market. The consumers can try the product. (2) Demonstrations or instructions educating the consumers in the manner of using the product. (3) A coupon is a certificate that reduce price. When a buyer gives a coupon to the dealer, he gets the product at a lower price (Regular price is Rs. 10; with a coupon it is Rs. 8. Coupons (same as money) are accepted as cash by retailers. (4) Money-refund orders, *i.e.,* full purchase price is refunded, helping the introduction of a new product. Refund offer creates additional interest and increases sales considerably. It is a good device for creating new user and to strengthen the brand loyalty. (5) Premium offers are temporary price reductions which appeal to bargaining instinct, *e.g.*, instant coffee sold by one company was very successful. Towels, dinnerware, hair-brushes, key chains, artificial flowers, ball pens, toilet soaps, blades, were given as in-pack premiums. Attractive reusable jars costing separately Rs. 4 may be given at an extra charge of Rs. 2 only. Liril gave a soap box almost free with two toilet soaps. (6) Price-off, *e.g.*, Re. 1 off on a Brooke Bond pack of 500 grams; the price-off label is printed on the package. It gives a temporary discount to the consumers. (7) Fashion shows and parades are good promotion aids or helps in men's and women's sophisticated clothings. (8) Contests or sweepstakes for consumers help to stimulate consumer interest in the product. In these contests, participants compete for prizes on the basis of their skill or creative ideas. In sweepstakes, they submit their names to be included in a drawing of prize winners. This type of sales promotion is not a lottery because there is chance or luck, prizes are offered and a payment to participate is there. (9) Trading stamps are given for purchasing in a particular shop.

Desler's Sales Promotion: These devices or helps are: (1) There is a provision of free display material either at the point of purchase (POP) or point of sale (POS), depending on one's viewpoint. Display reaches consumers when they are buying and actually spending their money. (2) Retail demonstrators are supplied by manufacturers for preparing and distributing the product as a retail sample, *e.g.*, Nescafe instant coffee to consumers for trying the sample on the spot or demonstration regarding the method of using the product. (3) Trade deals are offered to encourage retailers to give additional selling support to the product, *e.g.*, toothpaste sold with 30% to 40% margin. (4) Seller gives buying allowance of a certain amount of money for a product bought. (5) Buyback allowance is given to encourage repurchase of a product immediately after another trade deal. A buy-back is a resale opportunity. (6) Seller gives free goods, *e.g.*, one free with 11, or 2 free with 10 are common free deals. (7) Advertising and display allowance may be given. (8) Sales contests for salesmen are held. (9) Dealer loader (a gift for an order) is a premium given to the retailer for buying certain quantities of goods or premium for special display done by a retailer. (10) Dealer and distributor training for salesmen, which may be provided to give them a better knowledge of a product and how to use it.

Dealer sales promotion provides *selling the selling* devices. Sales promotion devices at the point of purchase inform, remind, and stimulate buyers to purchase products. People who see these devices are in a buying mood and thus they can be easily persuaded to buy those products. Tell tags are informative labels affixed on the product, describing in detail the features of the product and its unique selling points. Shelf talkers are similar labels attached to the shelves close to product displays. Counter top racks, posters, mechanised signs are other point-of-purchase displays.

Each form of sales promotion is used to encourage quick movement of products along the channel of distribution and enhancing the tempo of sales campaign. It also creates extra incentive or gives extra value to the channel of distribution itself, *e.g.*, retailers. Hence, sales promotion offers a direct inducement which gives an extra value or incentive to the distributors, their sales force and the ultimate consumer.

Reasons for Sales Promotion *(Merchandising Aids)*

(1) Introduction of a new product. (2) Stimulus for a new use of a product. (3) Encouragement for increasing frequency of purchase. (4) Appeal to a special area of the market. (5) Combination offer to encourage the use of other products. (6) Creation of dealer interest and inducing them to stock the articles. (7) Securing shelf space in the retail window. (8) Counter-balancing price competition. (9) Special training of salesmen. (10) Seasonal and grand reduction sales. (11) Capturing bargain hunting and non-brand conscious buyers through bargain sales. (12) Acceleration to slow-selling lines.

Thus, sales promotion is used at the time of introducing a new consumer product, to secure maximum dealer stocking, display space and attention of customers. Sales promotion involves a lot of expenditure. It also has difficulties. But because it pays rich dividends, sellers have accepted it as an important item in the marketing mix. Not only does it give profit but it also serves other purposes such as provision of information, creation of demand, repeat buyers, sales stabilisation and quick inventory turnover. The successful promotional effort has many ingredients such as personal selling, sales promotion devices, advertising, public relations and publicity.

Exhibitions and Trade Fairs

An exhibition stand or stall is a form of showroom, but it is a very distinctive form of showroom. It provides a temporary market place at which buyers and sellers meet. There are various types of exhibitions, international trade fairs, national and local fairs and exhibitions (usually sponsored by a chamber of commerce or trade association). We may have indoor or outdoor public exhibitions and fairs and shows, *e.g.*, agricultural and industrial machinery and equipment, cottage industries and handicrafts, fashion shows and parades, domestic electric appliances, office machines and appliances, *etc.*

An article shown at an exhibition at least makes a good impression without creating actual demand. A man is greatly impressed with a typewriter, time clock or simple appliance. He makes up his mind to buy one sooner or later. Usually, people are in a buying mood when they visit an exhibition.

A successful stand in an exhibition or a trade fair gives three services to the owner:

1. It provides entirely new business which cannot be secured by any other method.

2. Buyers unwilling to meet salesmen or visit the shop or show-room will, on their own account, do a lot of purchases at these fairs or exhibitions. These buyers are usually resellers.

3. Competitors compete with each other for getting maximum business. The conservative buyer can compare the competitive lines displayed in close proximity and constructive and conservative buyers (resellers) can be easily handled and captured by rival sellers.

In many trades, exhibitions are held annually at the same period of the year. These exhibitions attract a large number of buyers every day. These annual exhibitions become the basis of many sales campaigns. Buyers purchase all their requirements, *e.g.*, utensils, furnishings, appliances, clothing, fittings, at these exhibitions.

Publicity

Publicity is also called marketing public relations. Publicity is not paid for by the organization. Publicity comes from news reporters, columnists and journalists. It comes to the receiver as the truth rather than as a commercial. Public relations and publicity taken together become the fourth major ingredient of promotion mix. These activities are, however, not controllable by the firm. Every firm tries to create a good public relations so as to give good publicity.

Defective products, unfair trade practices, anti-social activities often result in unfavourable publicity, consumer ill-will, bad product image, increased consumer protests, government regulations and so on. The firm having a poor public image will have lower sales and lower profits. Reducing the impact of bad news is as important as creating good publicity.

Under the social marketing concepts publicity and public relations are assuring unique importance in the firm's promotion mix. Consumerism is altering consumer attitudes not only towards products, but also towards the firm and dealers selling the products of the film.

Public Relations: Public relations have now become an important marketing function. The total process of building goodwill toward a business enterprise and securing bright public image of the company is called public relations. It creates a favourable atmosphere for conducting business. There are four groups of public: (1) customers, (2) shareholders, (3) employees, (4) the community. The marketers should have the best possible relations with these groups. Public relations complement advertising by creating product and service credibility. Effective marketing communication is not possible without establishing and maintaining mutual understanding between the company and its customers. The lubricant making the wheel of marketing run smoothly is public relations. Blight image is created and maintained only by public relations.

POINTS TO REMEMBER

1. **Ingredients of Promotion :**
   (a) Advertising *(b)* Publicity *(c)* Personal Selling *(d)* Sales Promotion
2. **Factors determining the form of Promotion :**
   (a) Product *(b)* Buyer *(c)* Company *(d)* Channel
3. **Sales Promotion** — Meaning — Objectives — Strategies and Limitations of Sales Promotion.

Kinds of Sales Promotion

- *(a)* Common Promotion.
- *(b)* Dueler Sales Promotion.

4. Sales Promotion includes:
   - *(a)* Displays.
   - *(b)* Exhibition and showroom.
   - *(c)* Demonstration.
   - *(d)* Free samples.
   - *(e)* Coupons.
   - *(f)* Premium.
   - *(g)* Other non-recurring selling efforts not in the ordinary routine.

STUDY QUESTIONS

Part - A

(2 marks questions — answer in 4 lines each)

1. What is promotion ?
2. Name four components of promotion mix.
3. What is marketing communication ?
4. What is promotion message ?
5. What do you mean by AIDA formula ?
6. What is promotion strategy ?
7. What is sales promotion ?
8. What do you mean by promotion blend ?
9. What is free sample? ***(B.U. Apr. '99)***

Part - B (24 marks)

(8 marks questions — answer in 30 lines)

1. Analyse the process of communication in marketing.
2. Analyse the impact of promotion on demand for the product.
3. Give a note on promotion blend.
4. Narrate the objectives of promotion.
5. Briefly analyse the sales promotion devices.
6. Analyse the objectives of sales promotion.

Part - C (60 marks)

(15 marks questions — answer in 3 pages)

1. Explain the process of marketing communication with illustrations.
2. Critically examine the marketing and social aspects of promotion. Should it be controlled by law?
3. Explain the five promotion practices considered as unethical. What should be done to stop these practices?
4. Briefly explain the need for sales promotion.
5. Comment on the integrated character of the three musketeers of promotion mix.
6. Explain how public relations could improve the effectiveness of marketing communication and a firm's total marketing mix.

7

ADVERTISING

Importance of Advertising in Marketing — Advertising as Communication Process — Creation of Good Advertising — Advertising Management

IMPORTANCE OF ADVERTISING IN MARKETING

What is Advertising ?

Let us start with an obvious fact that advertising is a form of mass communication. It is paid for by a sponsor (seller) who wants to communicate about his product or service to his customers. The sponsor wants to persuade and induce the readers, viewers or listeners to take some action, *viz.*, to buy the advertised product so that the advertiser can have profitable sales.

Advertising can be defined as mass, paid communication (presentation and promotion) of goods, services or ideas by an identified sponsor. It is paid communication because the advertiser had to pay for the space or time in which his advertisement appears. Advertising appears in the recognised media, such as newspapers, magazines, radio, television, cinema film, outdoor hoardings and posters, direct mail and transit (cue cards).

Strengths of Advertising as a Promotion Tool

Advertising is a major promotion tool. It has the following basic plus points or strengths as a promotion tool: It offers planned and controlled message. (2) It can contact and influence numerous people simultaneously, quickly, and at a low cost per prospect. Hence, it is called mass means of communication. (3) It has the ability to deliver messages to audiences with particular demographic and socio-economic features. (4) It can deliver the same message consistently in a variety of contexts. (5) It can reach prospects that cannot be approached by salesmen, *e.g.*, top executives. (6) It helps to pre-sell goods and pull the buyers to retailers. (7) It offers a wide choice of channels for transmission of messages such as visual, aural, aural and visual. (8) It is very useful to create maximum interest and offer adequate knowledge of the new product when the innovation is being introduced in the market.

Weaknesses of Advertising as a Promotion Tool

Advertising as a promotion tool has the following weaknesses: (1) It is much less effective than personal selling and sales promotion at later stages in the buying process, *e.g.*, in convincing and securing action. (2) It is less flexible than personal communication. It cannot answer objections raised by prospects. (3) It is essentially one-way means of communication. It cannot obtain quick and accurate feedback in order to evaluate message effectiveness. In absence of feedback, personal salesmen becomes necessary. (4) It is most efficient communication (very low cost persuasion prospect) but it is least effective as a tool of communication. (5) It is unable to reach prospects when they are in a buying mood. Hence, we have to repeat advertisements and repetition involves additional cost. (6) Advertising media, *e.g.*, newspapers, magazines, carry many messages competing to secure attention of audience simultaneously. Thus, it creates noise in communication. (7) Advertising, many a time, lacks credibility and trustworthiness.

Many of the aforesaid weaknesses can be eliminated by other elements of promotion when they are combined with advertising.

Distinguishing Features of Advertising

(1) It is a unique means of non-personal or mass communication announcing the sale of goods or services. It can help to introduce a new product quickly.

(2) The advertising is non-personal salesmanship performing similar functions like personal salesmanship. It is a silent but forceful salesmanship. It helps to pre-sell a product.

(3) It is an openly sponsored sales message regarding any product or service, *i.e.*, the sponsor can be identified.

(4) It is a paid communication—paid for by the sponsor (advertiser) to the media owner (seller of advertising space).

(5) Advertising message can be addressed to numerous persons at a time — they may be readers, listeners, viewers, collectively called audience of advertisement. It has the ability to expose large groups of prospects at a low cost per prospect.

There are two vital differences between advertisement and salesmanship:

1. Salesmanship is personal involving direct personal face-to-face communication. Advertising is non-personal and indirect means of communication with the prospect through various media of advertisement.

2. Salesmanship is individual (person-to-person) communication through personal interview between the sales person and the prospect. On the other hand, advertising is mass communication, advertiser reaching a large number of prospects simultaneously. An advertisement is read, seen or heard by any number of prospects.

Similarly, there are two differences between advertising and other forms of publicity:

1. Advertising must be carried on by an identified sponsor. Publicity need not have identified sponsor.

?. Advertising is a paid form of communication. Publicity is not a paid form of communication. In a sense, paid publicity is advertising.

Importance of Advertising in Marketing

Nothing except the mint can make money without advertising. Mass production and mass distribution totally depend on all forms of advertising and publicity. We can tell numerous people about a product or service in the quickest time interval at the lowest possible cost.

Advertising by facilitating mass production and mass distribution has provided immense employment opportunities to people. It is responsible for creating and delivering rising standard of living to innumerable people. It has made possible tremendous industrialisation and economic development in many countries. It is the backbone of modern national and international marketing. Many modern amenities like refrigerators, motor cars, cameras, radios, vacuum cleaners, and other appliances are sold in mass markets at very reasonable prices—much lower than the prices at which they were initially introduced in the market. Modern advertising informs, guides, educates as well as protects buyers, so that they can buy intelligently and raise their standard of living. In the tool supplemented by salesmanship and sales promotion. Advertising is to business what steam, electric or nuclear energy (motive power) is to industry. The wheels of industry and commerce cannot move with desirable speed without the propelling power of promotion mix.

Advertising Purposes

Advertising purposes and tasks are set by marketing plans and strategies. Advertising is the use of paid for, sponsor-identified material in mass media (including direct mail), the real purpose of advertising is only one, *viz.*, to sell something — a product, a service, or merely an idea through effective communication. Most advertising attempts to stimulate sales to all customers (present, former and future). Advertising has other purposes as well. It is used to reassure buyers that they have really made the best purchase. Thus, advertising can build up brand loyalty. Advertising can enhance the morale of the sales people and dealers thereby securing enthusiastic distribution of products. Advertising is also employed to promote the bright image of the firm in the society. Advertising programme as an integral part of the promotion campaign may have one or more of the following specific objectives:

1. ***Promotion of New Product:*** Advertising can make prospects at least aware of the entry of the new product in the market.

2. ***Support to Personal Selling:*** Advertising can move the prospect nearer and nearer to the point of purchase. Under favourable atmosphere, salesman's job is easier and simple. Actual closing of sale is thus facilitated by advertising, selling costs are reduced incidentally. It should be noted that advertising and salesmanship are really complementary and in no way competitive tools of promotion.

3. ***Brand Patronage:*** In the long run, effect of advertising on brands and companies may be of great importance. The advertising programme can aim at consumer awareness and attitudes. Buyers may be induced to purchase and repurchase. If the trial is satisfactory, consumers may stick with the brand. Thus, advertising tries to create and retain brand preference and brand loyalty. We can have advertising relevant to each stage in the buying process. It is the function of advertising to lead step by step to the point of purchase, but not necessarily to purchase.

4. ***Immediate Buying Action:*** Advertiser may attempt to obtain immediate buying action, for instance, mail order advertisements, point-of-purchase advertisement, direct-action retail advertisement, price deal offers, last chance offers are special advertisements persuading prospects and securing prompt actions. Direct mail is the usual medium for coupons, samples, and other forms of direct action advertising.

*5. **Pre-sold Goods:*** Well advertised brands are pre-sold goods. Buyers are pulled by such advertisements. Supermarket advertisers pull customers and goods are sold without active help of counter sales force.

*6. **Dealer Support:*** National or big firms advertise extensively and intensively to support dealers and distributors so that they can assure accelerated distribution. Advertising alone can create mass markets for products which are intrinsically sound and can easily fill the customer needs and desires. Mass marketing brings about reduction in the cost of production as well as cost of distribution.

Advertising is a powerful promotion tool to establish and retain brand loyalty and even store patronage provided the product itself does not suffer from quality deficiencies, errors in design or other handicaps and the retailers do not have deterioration in their customer services.

Advertising and Brand Patronage

Advertising is an important promotion tool in order to establish brand patronage. Customer preferences toward brands indicate the following tendencies:

*1. **Brand Insistence:*** A buyer insists on purchasing one brand only and will not accept a substitute.

*2. **Brand Loyalty:*** A buyer has a strong attachment to the brand and will not accept a substitute if the brand is available.

*3. **Brand Preference:*** A buyer favours the purchase of the brand but will accept a substitute.

*4. **Brand Acceptance:*** A buyer will buy the brand but has at open mind to try another brand.

*5. **Brand Awareness:*** A buyer is merely aware of the existence of the brand but has limited knowledge about is and has no particular emotional attachment to it so far. He may or, may not risk purchasing the brand.

*6. **Brand Unawareness:*** A buyer has no knowledge of the existence of he brand.

Most of the time, an advertiser (seller) tries to build a brand privilege or patronage for his product or service. A seller has a brand privilege if buyers exhibit brand insistence, brand loyalty, or brand preference toward his product or service. By means of advertising or persuasive mass communication, seller tries to move prospective buyers and existing buyers from lower level to higher level to brand attitudes of customers—from brand ignorance to brand awareness, or from brand acceptance to brand preference loyalty, and insistence. This can be done through proper promotion tools over a period of time. However, the product itself must have good quality and performance. It should not have any other handicap.

ADVERTISING AS COMMUNICATION PROCESS

The following diagram describes communication process as applied to advertising. We have: (1) communicator, (2) idea, (3) media, and (4) audience in the process of communication.

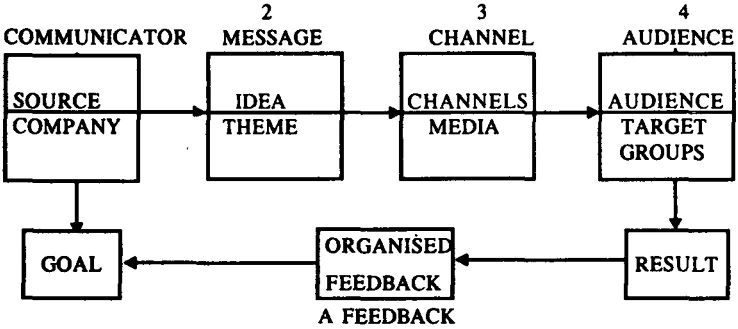


Fig. 7.1 Advertising as Communication Process

Comments

The source of the advertising is the company paying for it and hence interested communicator. The company as a communicator must establish credibility in the eyes of the audience. The transmitted idea is the advertising message or theme. The advertising message must be noticed, must attract attention and must *(a)* supply information, *(b)* arouse expectations, and *(c)* be persuasive. The advertising message contains appeals which can strengthen the buyer motivation and minimise buyer resistance to purchase. The channels are the advertising media which transmit the message, such as television, radio, press and direct mail. The audience are the members of he target market at whom the advertising is directed.

In order to be effective advertising must be seen, read or heard, believed, remembered and it must induce a prospect to action (purchase). Advertising is expected to influence buyer behaviour in general. It attempts to *(a)* induce awareness, *(b)* change certain attitudes, and *(c)* induce customer to buy. Advertising objectives in terms of communication may be to secure higher and higher brand preference. The ultimate result will naturally be increase in the number of buyers and higher market share.

Effects of Advertising Campaign — Expected

Advertising Theme	*Level*	*Objective*
Awareness	1st level Mental Response	Brand Recognition From 20% to 40%
Attitudes	2nd Level Mental Response	Brand Preference From 15% to 25%
Purchase	3rd Level Purchasing Response	Market Share From 20% to 25%

Obstacles and difficulties encountered by advertising in the realisation of set objectives may be: (1) resistance or defence of audience (hardly 5 p.c. of all advertisements reach the audience). (2) Present predispositions and habits change very slowly. Basic attitudes hardly change. (3) Advertising theme may be inappropriate. (4) Picture and text may be used ineffectually. (5) There may be too quick change in the theme. (6) Advertising budget may be too small.

Please note that objectives of communication can be varied and sometimes fairly intangible in the sense that they may aim at achieving objectives which are totally unrelated to the attainment of sales. For instance, institutional advertising to develop a better corporate image in the market cannot be an objectives of the total marketing programme, and communication is only one more aid toward their attainment. The followers of sales-effect school consider that the main objective of advertising is to produce sales. The followers of communication effect school want to measure the effectiveness of advertising in terms of its impact upon consumers' attitudes, preferences and beliefs. Both are right. Advertising is an element of marketing mix as well as it is also a communication tool.

Communication Goals of Advertising

Advertising should concentrate on clear and measurable communication objectives known as DAGMAR (Defining Advertising Goals, Measuring Advertising Results). Russell Colley in 1961 pioneered DAGMAR. At that time, he wrote: "Advertising succeeds or fails depending on how well it communicates the desired information and attitudes to the right people at the right time and at the right cost."

Advertising objective must be oriented around the process of communication. Communication tasks are: (1) developing brand awareness, (2) changing consumer attitudes, (3) associating desirable themes with product, and (4) informing consumers about product attributes.

The ultimate purpose of most advertising is to help the probability of the sale of a product or service. Advertising as a mode of promotion increase propensity to purchase—moving the prospect steadily, inch by inch, closer to a purchase decision. Of course, advertising is only one of several communication forces. It moves the consumer through successive levels such as unawareness, awareness, comprehension or recognition, conviction (intention to buy) and action (purchase).

Advertising may work at all levels at the same time. Let us assume that the market is equally divided into five levels. Colley's classification of awareness levels has five levels. (1) Unawareness indicating those who have never heard of the product. (2) Awareness covering those who know of the existence of the product but who do not know of its advantages. (3) Comprehension representing those who comprehend the product but who are not yet convinced that they want to buy it. (4) Conviction pointing out those who are convinced about the merits of the product but have not got around to buying it. (5) Action reflecting present users of the product. The firm embarks upon a special advertising campaign and as a result of this campaign, half of those at each level move up the rung on the ladder.

Due to special advertising campaign 10 percent of unaware prospects became aware, 10 percent of aware prospects could comprehend or recognise the brand existence and so on. Ultimately there was 10 percent increase in the actual buyers.

Advertising goals may be divided into four stages of commercial communication as follows:

1. Awareness: The prospect must become aware of the existence of the brand or company. Awareness is the bare minimum goal of advertising.

Stage I. Before the Advertising Campaign

5.	Action	20%	Present 'Jsers
4.	Conviction	20%	Conviction (Brand Preference)
3.	Comprehension	20%	Comprehension (Brand Recognition)
2.	Awareness	20%	Awareness
1.	Unawareness	20%	Unawareness

Stage II. After the Advertising Campaign

5.	Action	30%	Present Users
4.	Conviction	20%	Conviction (Brand Preference)
3.	Comprehension	20 %	Comprehension (Brand Recognition)
2.	Awareness	20%	Awareness
1.	Unawareness	10%	Unawareness

2. *Comprehension:* The prospect must understand what ie product is and what it will do for him. Comprehension level indicates that people are not only aware of the brand or company but they also know the brand name and can recognise the package or trademark. But they are not yet convicted that they want to buy.

3. *Conviction:* The prospect must be mentally convinced to buy the brand or the product. The conviction level shows brand preference and intention to buy the product in the near future.

4. *Action:* The prospect takes meaningful action. Purchase decision is duly taken.

These four goals of advertising in communication terms are measurable results.

Advertising performs its role when it contributes to moving the consumer from one level to another in the communication spectrum; awareness of the existence of the product, comprehension of the features and advantages, rational or emotional conviction of the benefits and, finally, action leading to a sale. Advertising goal is to perform certain parts of communication job with greater economy, speed and volume than can be accomplished through other means of promotion.

Mail order advertising moves a prospect through the entire cycle of communication spectrum. It can move a reader from unawareness to cash-in-advance or cash-on-delivery sale. In consumer package goods, advertising can carry the major part of the marketing communication work load: from awareness right up to action, *i.e.*, products sold through self-service stores. In industrial goods, advertising is a complementary force of communication, and personal selling is the dominating force of communication. In door-to-door selling, advertising has no role of promotion and personal-selling can sell the products to consumers in a few minutes of persuasive selling.

In essence, advertising goals are expressed in terms of communication spectrum. For example, marketing objective is to increase the market share for a brand from 20 to 30 percent among the women (25 years to 40 years) in Bombay during the year 1983-84. The advertising goal could be to increase awareness of the brand X from 40 to 60 percent among the target market by informing them that the product is designed to satisfy the needs of women (25 years to 40 years).

There is a controversy in the advertising world regarding objectives of advertising as a means of communication. One school of thought is action-oriented. It is called sales-effect school. The second is known as the communications effect or DAGMAR School. Both are right, communication programmes are action-oriented. Mail order advertising is some cases where the underlying objective is action, *i.e.*, to secure sales. However, advertising to reduce after purchase doubts and anxieties of buyers particularly in the purchase of costly durable goods such as homes, cars, and major appliances, has no objective of securing action, *i.e.*, sales. Such advertising is not action-oriented. It wants to give information or change attitudes. It has only the goal of communication. An advertisement will only stimulate a favourable attitude toward the company and its products. Such advertising certainly has DAGMAR effort. In short, we may follow the action school or DAGMAR philosophy, but we must have clearly defined objectives for our advertising. It is quite obvious that communication tool is only one ingredient of the marketing mix and it cannot be totally accountable for sales.

Advertising Campaign

A campaign is a series of operations to achieve a goal. A single idea or theme is the centre of our efforts. All promotional efforts are directed towards pre-set goal, namely, maximum sales and service.

It is desirable to formulate entire promotion campaign covering all the three branches of promotion simultaneously, and duly integrating them to secure united efforts and teamwork. Promotion campaign has four wings: (1) personal selling, (2) advertising, (3) sales promotion, and (4) publicity.

We now concentrate on the advertising campaign:

(1) Determine specific goals to be achieved and decide the central theme and appeals to be stressed to influence buying motives and habits of customers. (2) Determine the allocation of funds to advertising as one of the promotional tools. (3) Select the appropriate media of advertising. (4) Create suitable advertising message or copy to reach market target in the best manner possible. Copy is the heart of the entire advertising programme. It is the job of experts. (5) Evaluate the effectiveness of the advertising plan or campaign. On the basis of evaluation, we can alter or modify our decisions relating to media and/or advertising copy.

Planning and execution of our advertising campaign can be entrusted to an advertising agency, a specialist organisation for advertising.

Media Selection

In making media decision, we have to consider the following factors: (1) The financial allocation for advertising. (2) the nature of the product and the demand for it. (3) The types of prospects, their location and other characteristics. (4) The nature of competition and the extent of coverage required. (5) Cost of media, co-operation and promotional aids offered by media, and media circulation.

Right media of advertisement will enable the advertiser to deliver the message effectively to the intended markets or prospects.

Note:

1. Displays, shows, exhibitions, trade fairs, point of purchase materials are normally included in sales promotion devices.
2. Advertising specialties such as calendars, diaries, blotters, pen stands, ball pens, pencils, key rings, and many other novelties are partly for advertising and partly for sales promotion. These are business gifts and means of publicity and patronage.

Characteristics of Important Media

1. Mural Advertising: Mural or outdoor advertising has long life. It has a general and wide appeal. It can attract attention of numerous people, it is good to remind prospects. An advertiser has ample scope to use his skill and art in advertising.

However, outdoor advertising has certain limitations. It cannot have a long message. It is not useful in selective advertising or for specialised products. It has a low retention value. Its effectiveness cannot be accurately measured and it may lead to considerable wastage also. Bill boards and hoarding are not welcome today on the highways due to adverse public opinion. (They spoil the natural beauty and environment).

2. Press Advertising: Newspapers have a general and wide appeal. It is very common method of publicity. Newspapers are flexible and timely. Repeat advertising is possible. Periodical change in size and contents is also easy. Selective advertising to some extent is available. Effectiveness of advertising can be estimated by having keyed advertisements. Newspapers offer promotional assistance. They are the best source of market information.

Newspapers are truly a way of life to most of the literate people. They have short closing times. Closing times refer to the period before publication when the copy must be submitted. For newspapers, this period is only 24 hours. The adage 'seeing is believing' is applicable to press advertisements. It offers greater prestige and believability.

However, newspapers have short span of life. We cannot have coloured and attractive advertisements. Waste in advertising is considerable. Illiteracy affects its utility. Magazines and trade journals are other means of press publicity. They are best for coloured and attractive advertisements. They have longer life, greater retentive value as well as reference value. Selective appeal is possible. We can approach particular market segment only. Waste can be reduced. However, they need advanced planning, do not facilitate repetitive advertisements. They have limited circulation, they have higher unit cost per contact.

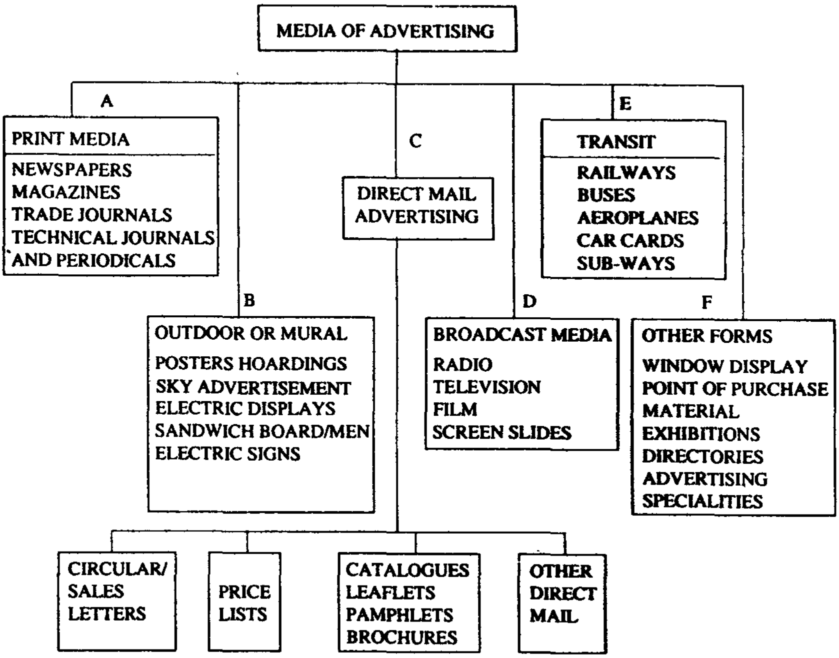


Fig. 7.2 Media of Advertising

3. ***Film Advertising:*** It has a wide appeal. It can overcome language barriers. Audio-visual (sound and sight) technique has maximum impact on audience. Sound and sight both are employed for communicating our message. Repeat advertising is possible. However, both cost of production as well as cost of distribution of slides and films are quite high. Selective advertising is not possible. Effectiveness cannot be measured. Waste in film publicity can be considerable.

4. ***Radio Advertisements:*** Of all the media, radio has the shortest closing times. Radio uses only an audio (sound) signal, the copy can be submitted up to air time. Announcements can be made very quickly. It can secure dealer support. It has a very wide appeal.

It is suitable even for illiterate people. Repeat message is quite common. Spoken word has greater impact than written word. However, radio cannot permit selective advertising. It cannot give detailed information. It has low memory value. People remember far more of what they see than of what they hear. Its cost is high. It may not be very effective as listeners may not like it. Many a time, they are bored by repeat messages. The length of time media is momentary. The message may be lost, if the radio is not tuned.

5. Television Advertisement: Television uses both video (sight) and audio (sound) signals. Television has all the advantages of radio, namely, sound and explanation, plus the additional advantage of sight. It can appeal through ear as well as eye. Products can be demonstrated with explanation. Television reaches the audience almost like personal face-to-face contact. To that extent it is just like personal salesmanship. Full opportunity exists for product demonstration and amplification of selling points with audio presentation. It is really a wonderful means of mass communication for creating market. Television combines all of the elements of communication: (1) Illustration; (2) Music; (3) Spoken words; (4) Written words. We can have short commercials as well as sponsored programmes combining entertainment with advertisement. It represents typical combination of salesmanship and advertising.

However, television has limited market coverage. Advertising on TV is expensive. In addition to time costs, the costs of producing TV shows are considerable. Both radio and TV messages have no life span like the messages in printed form. TV cannot have a long advertising copy.

6. Transit Advertising: Transit advertising consists of car-card advertising, which is located within buses, subways, railways, and outside displays, which appear on the fronts, sides, and backs of buses or other public transport and at transportation terminals. Transit advertising is the lowest-cost media. It gives geographic selectivity and seasonal selectivity. It has high readership. It can reach pedestrians and travelling public. However, non-riders are not exposed to car-cards located inside the vehicle. Car-cards have small size and they can carry only short copy. Transit advertising is limited in quantity by the number of public vehicles in operation.

7. Direct Mail: Direct mail is any advertising sent by mail (postal transmission) including sales letters, folders, pamphlets, booklets, catalogues. and the like. Direct mail is the most personal and selective media. It reaches only the desired prospects. It has minimum waste in circulation. The advertising copy can be very flexible. It has maximum possible personal features even without personal contact. It can provide detailed information about the product or service, creating lasting impression. Its effectiveness is measurable. It can be timed at persuasion advertiser's will. It has maximum personal appeal. It can take any size, shape or form permitted by the post office. It is not in direct competition with the rival's matter. Extensive testing can be done on the product, price, appeal or other factors before the entire mailing is sent out. The results of direct mail advertising can be checked by means of an offer incorporated in the mailing list. However, direct mail is costly. We may not have proper mailing list. Receiver may consider it as junk mail as it may not have entertainment value. It is not a good means of mass communication.

8. Advertising Specialties: These include a wide variety of items, such as calendars, books, matches, pens, pencils, knives, key rings, diaries, memopads, cigarette lighters, blotters, paper weights, purses, rainhats and so on. They are given to advertising targets without cost or obligation. Advertiser's name, address, phone number, and a short sales message are imprinted on the item. The advertiser can choose from among 5,000 specialties in the market. Advertising specialties are reminder type of promotion. It is hoped that they will lead to customer's orders and re-orders. However, they have limited space available for sales message. They are also costly.

9. Point-of-Purchase Advertising: It really represents sales promotion devices. It covers the display material used in advertising programme. Such point-of-purchase material may include advertising on the package, window banners, shelf-talkers, merchandise tags, package stutters, information folders and booklets and such other displaying materials.

CREATION OF ADVERTISEMENT

Advertising Theme or Appeal

The theme or appeal is the central idea around which the advertisement is created. It is called the unique sales proposition. It represents a specific point of view or idea to be stressed in the advertisement. It can arouse desire and induce action on the part of customers. It is the heart and soul of advertising copy or message:

There are various appeals used in advertisements to sell your product or service. The selection of theme or appeal is usually made by means of consumer study and research. We have the following common appeals with which advertising message can be effectively communicated: beauty, pride, health, comfort, economy, fear, emulation, distinction, love and affection, ease in operation, speed in performance, etc. The theme or appeal points out the most important reason or driving force leading to the purchase of a certain product or service. It is an appeal based on human emotion, feelings, sentiments, needs and desires. It ignites the will to purchase and acquire the product. A good theme will aim at a basic buying motive, attract the right the group of prospects, tie in logically with the product and its qualities and be capable of being used in multiple media.

Advertising Layout

There are two parts of an advertising copy: (1) Advertising theme or appeal that attracts customers; and (2) Advertising layout. Advertising layout deals with proper and attractive physical arrangement for the best presentation of the message or sales communication. A visual layout of an advertisement has the following elements: (1) Headlines—The heading and sub-headings, if any. (2) Illustrations and colours. (3) Text—the heart of advertising message giving the story of the product or service to be sold. (4) Advertiser or sponsor. (5) Black or white space and the border to create distinctiveness.

*1. **Headline:*** Headline must put forth the main theme or appeal in a few words. It should be clear, simple, short and attractive to hold attention of the prospect. It should reflect the contents of advertisement and guide the prospect properly. It may show a promise or a reward and induce prompt action. It should be printed in prominent manner.

*2. **Illustrations:*** They provide line drawings, cartoons, pictures, symbols, photographs for attracting attention, creating interest and arousing desire. Illustration is the best and most effective way of communication of ideas (far better than hundreds of words) at a glance. We can demonstrate the use of the product through proper visual demonstration.

*3. **Colour:*** It is an important ingredient of an advertisement. Colour has great attention-attracting power. Judicious blending of colours can evoke emotional reaction which cannot be created by mere description. Each colour has individual meaning and significance in communication of ideas. Nature reflects its beauty in colours. Red, green and black are most popular colours used in advertisement. Colour-contrast is more attractive and pleasing to our eyes. An advertisement should be a colourful silent salesman.

*4. **Body Copy or Text:*** It is the advertising message proper. It is called the heart of advertising copy. It is the sales talk performing AIDA functions of salesmanship. It will point out the selling points of the product, where it can be secured, what benefits the product will offer, what is its price, how it is to be used. It gives all essential information as well as guidance to the prospect. It gives proofs of benefits to convince the prospect, it educates, persuades, reminds and influences buyer's behaviour and action. The body copy explains and develops the ideas presented in the headline. It sharpens the prospects' desires and convinces the basic worth of the product or service.

5. ***Slogan:*** A slogan should be a fundamental sales argument for a product or service, expressed in a few words. It should be original and rememberable. It should contain the brand name and the name of the company.

Advertising Copy

It is prepared by an expert copy writer. It is written or spoken material of advertising communication and includes the headline, name and address of advertiser, as well as the main text of the message. Advertising copy is a creative business demanding a lot of imagination and foresight. Well-designed advertising copy uses four basic steps in selling: (1) attracting attention, (2) developing *interest*, (3) arousing *desire*, and (4) finally generating *action*, the so-called AIDA formula. It should adopt problem-solving approach and offer the right solution to the problems of prospect. 'You' attitude is always preferable in the communication. Appropriate appeals or pulls must be given special attention to maximise the pulling effect of advertising copy. Then only it can succeed in its mission, *viz.*, motivating the prospect to take purchase decision and execute it promptly. Advertising copy should be in simple, easily understandable, attractive and persuasive language. Then only it can gain action.

Essentials of Good Advertisement

A good advertisement must have message communicated through a right media. It must reach the right people and prospects and that too at the right time and at the right cost. Right timing of an advertisement needs to be emphasised. It should fulfil its sole purpose, *viz.*, gain sale or action from the prospects and the cost of communication should be reasonable. The task assigned to the advertisement can be successfully fulfilled when: (1) It is seen by the desired prospects; (2) it is read by them with interest; (3) it is properly understood by them exactly as the advertiser wants; (4) It is believed by them and it wins their confidence and trust and above all its succeeds in igniting their desire to purchase the product or service offered for sale. Effective advertisement takes the prospect near about the point of closing the sale so that actual sale may be easily completed by the sales force.

Each advertisement must be a unique selling proposition, invoking maximum force of persuasion to convert a prospect into a customer. Repetitive advertisements build up strong and enduring impression on the customers and help to create favourable brand image of the product. Public must be induced cleverly to look, like, learn and buy the advertised products.

Advertising requires efficient planning, organising and effective control. First we must find out sufficient opportunity to make advertising worthwhile. Once it is assigned a definite role, we have to lay down advertising objectives for a given advertising programme. Advertising objectives should be precise. They should emphasize the communication tasks such as brand awareness changes in consumer attitudes, *etc.* They must be connected with sales and profit goals.

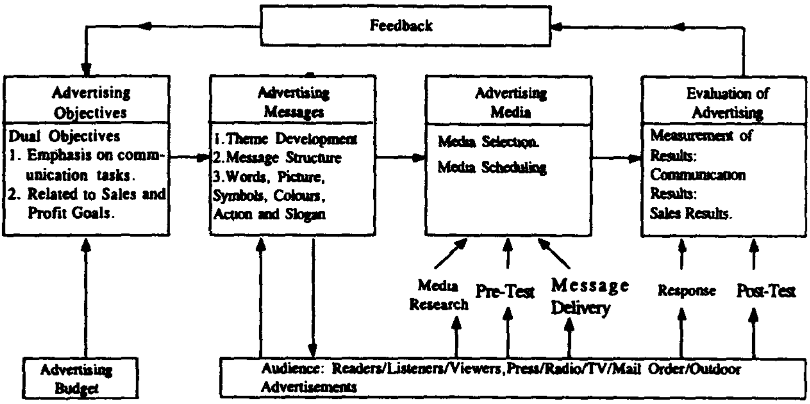


Fig. 7.3 Process of Advertising Management

Message creation is called the art of advertising. Message development is defined as 'what is said, how it is said, where it is said, and how often it is said'. The message must capture the attention, arouse interest and ignite the desire to purchase. A good advertising theme stresses clearly the differential advantage of the product or service over rivals. The presentation of the message involves the choice of words, pictures, symbols, colours, slogan, testimonial and action.

Media are chosen to reach the desirable segment of the population. Media selection is based on: (1) the communication requirements, (2) emphasis an the prospect, (3) an eye on the competition, and (4) the budget.

They have pre-tests of proposed advertisement as well as measurement of actual results with a post-test. Advertising agencies handle measurement of results as well as pre-testing of advertisements.

Advertising campaign can lead the prospect through the various stages of consumer decision processes, such as awareness, comprehension, conviction, purchase and repurchase. The communication effect of advertisement can be evaluated by sales effect of advertising which is difficult to assess. Sales are influenced not merely by advertising but by all the tools of promotion simultaneously. A firm may spend 50 per cent, more than its normal advertising budget in a third area. Then it can calculate the effects of these advertising changes on sales figures in each area. It is called experimental approach in evaluation of advertising results with regard to sales and profits.

Followers of communication-effect school look to opinion researchers to supply the tools of measurement to measure the effect of advertising as a communication tool. Followers of sales-effect school turn to Operations Researchers for assistance in making measurements of sales and profits due to advertising.

Assessment of Advertisement

The ultimate purpose of advertising is to sell the product, idea or service. Ability to generate sales is the acid test of an advertisement. Once the strong link is duly established between the need and the name (the product is symbolised by the name), advertisement can induce buying action. Success or failure of an advertisement ultimately depends upon the effectiveness of communication of desired information and attitudes. The communication, *i.e.*, the flow of information and understanding, must be to the right people, at the right time and at the right cost. If an advertisement creates anticipated sales volume as per our sales forecast, it means the advertisement is very effective and efficient.

However, advertising is only one element of our marketing mix. Many factors besides advertising influence sales success. There are at least seven factors beginning with the letter 'PRODUCT' that influence actual sale or purchase; (1) Product itself and its performance and want-satisfying power; (2) Point of purchase; (3) Package design; (4) Personal selling at all levels; (5) Promotion or sales promotion aids; (6) Publicity and advertising; and (7) Price; that hard reality. Obviously advertising alone cannot achieve our sales target, though it is a very vital element in our total marketing effort.

If advertising is regarded as a sales tool in our advertising campaign, the effectiveness of that campaign should be measured in terms of sales results. If its goal is to achieve a specific change in consumer awareness or behaviour, then the measurement of the advertising effects should be in terms of changing consumer attitudes.

Testing of Advertisement

Advertising involves substantial expenditure. It is one of the most criticised component of the marketing mix. We have to continuously increase the effectiveness of advertising. Marketing management must know not only which advertisement is better than others but also why it is better. Expenditure on advertising should not be a waste but it should yield rich dividends. Success of any advertisement is due to both: (1) The copy; and (2) The medium.

Copy Testing: Copy testing enables advertiser to determine the best way of presenting the selected appeals (selected through motivation research). The sales volume test attempts to measure the effectiveness of advertising by comparing the sales in two or more similar cities, in which advertising is used in one city and none in other. Other components of marketing mix are kept constant in all cities.

The effectiveness of advertisement as a communication tool is measured in terms of its impact upon the behaviour (knowledge and attitudes) of customers. We use attitude and opinion studies, memory tests and non-buying response measures. Except in the case of direct mail selling, the sales effect of advertising cannot be measured directly. It is preferable to attempt the direct measurement of sales under controlled conditions.

Media Testing or Selection: Media choice is determined b-y a number of factors such as: (1) Number of readers/viewers/listeners; (2) Characteristics of audience—education, sex, income, family size etc.; (3) Relative cost of various media of advertisement. Media selection helps the advertiser to find out the most effective media for conveying the appeal or message to the prospects.

Comments

1. Advertising should not create false values and expectations. Advertiser should prevent deceptive and misleading advertisements. Ultimately buyers are paying for advertising.
2. Good advertisement must be informative offering accurate, up-to-date and easily understandable information. It should provide guidance and education to buyers and above all it must protect consumer interest.

3. Hard-sell advertisements are blatant, combative and coercive. They irritate the reader, viewer or listener.
4. Soft-sell advertisements inform, educate, persuade, remind gently and gracefully.

Advertising Management—Advertising Agency

An advertising agency is an independent concern acting as a specialist in advertising. It acts as an agent or consultant of the advertiser who acts simultaneously on behalf of a manufacture, wholesaler or retailer. It is not an agent in the legal sense. Originally, it acted as a space broker for advertisements given to the media owner, *e.g.*, newspapers. Today, they are advertising experts or specialist in planning, creating and placing of advertisement. They plan and execute entire advertising campaigns. They conduct market research also on behalf of business enterprises. They choose the necessary description or brands, design the package or labels on the package. They select the media of advertisement. They prepare entertainment as well as commercial spots for radio and TV advertisements.

An advertising agency receives usually about 15 percent commission from the media owners. For instance, out of an advertisement bill of Rs. 60,000, the magazine owner receives Rs. 60,000 less 15 percent, *i.e.*, Rs. 51,000 only. The advertiser will, of course, pay the advertising agency the full amount of Rs. 60,000. The use of an agency costs nothing to the advertiser for other services, the agency charges a fee to the advertiser. The agency can even plan a complete marketing campaign, including sales promotion.

Arguments in Favour

Even when a company maintains a good advertising department, there are many reasons in favour of use of these agencies.

Reasons for using an advertising agency are given below:

1. The company cannot have all types of specialists such as copy-writers, artists, design staff, market research experts, etc. The agency can have these highly-paid specialists on a permanent basis, because their costs are spread over many advertisers. Hence, it is economical and cheaper to use an advertising agency.

2. The agency can take an unbiased or objective view of any advertising problem. The agency can see the product, its merits and demerits through the eyes of the buyers who are also 'outsiders'. This objectivity is not possible for an advertising department of the company.

3. The experience of an agency with its many other products and customers is also at the disposal of the advertiser.

4. Company's own department may not have that much time to produce results; the agency feels a greater pressure for giving effective performance.

5. If services offered by the agency are poor or unsatisfactory, these can be easily terminated by the company. However, an inefficient advertising department cannot be easily wound up.

6. Finally, the agency is paid by the media owner. The advertiser pays nothing for the use of an agency while buying advertising space, he pays the same cost if he places an advertisement directly with the media owner.

The Tasks of an Advertising Agency

In order to achieve a complete advertising service for its client, the advertising agency has to look after the following tasks: (1) Copy writing; (2) Art-pictures, photographs; (3) Media planning and buying of space; (4) Radio and television—producing commercial spots; (5) The work of market research; (6) Production—film or tape for use; (7) Public relations; (8) Merchandising; (9) Sales promotion devices; (10) Forwarding the advertising materials to the media owners and the clients in time. Advertising does more than simply inform—it promotes sales. It tries to persuade, inform and also remind the customers. Soft-sell ads are usually simple announcements. Hardsell advertisements are blatant, combative and coercive. They irritate readers, listeners, and viewers.

Appraisal of Advertising

Advertising has become an integral part not only of our marketing process but also of our entire economic and social life. It is a double-edged instrument or tool in the marketing mix. If it is properly used it can be a boon or a blessing in distribution. But if it is abused or misused, it can also act as a curse in distribution. By itself it is no doubt a very fine device of demand creation and demand stimulation, and can contribute a lot to investment, economic growth, rising income, rising standard of living and economic prosperity in any country. Most impartial studies of the economic value of advertising point out, beyond the shadow of doubt, that favourable economic effects do counterbalance the unfavourable effects which are primarily due to unsocial and unethical advertisers. Fortunately, such unscrupulous advertisers are in a very small minority.

Consumerism through self-help can be an effectiveness deterrent on deceptive or misleading advertisements. Consumer legislation to ensure truth-in-advertising and truth-in-packaging can also offer reasonable protection to consumers against evils of advertising.

However, in the last analysis, self-regulation by business alone can ensure the desirable benefits of advertising to the society. Consumer education, consumer guidance and consumer protection should be the responsibility of both, consumer organisations as well as business enterprises in the bilateral exchange relations between buyers and sellers in any country. Legislation is very rough substitute for business self-regulation or mobilisation of self-help by consumerism.

We will now consider in brief the arguments for and against advertising.

Arguments for Advertising

1. Advertising stimulates production, employment and income, leading to rising purchasing power and better living standards.

2. Commercialisation of inventions, accelerated public acceptance of innovations, new products, *etc.*, can be realised only due to effective mass communication or advertising. Change is the essence of life. It can be brought about by science and technology but it has to be accepted by the public without much resistance. For quick acceptance of new products and new ideas we need advertising.

3. Informative advertising enables consumers to secure relevant and adequate information about all rival products and their relative merits. Thus, advertising helps consumers to exercise their right to choose and buy a product of service intelligently. We have a wide variety of goods many of them complicated and sophisticated. Hence, wise purchases demand adequate information flow.

4. Advertising facilitates mass production and mass distribution. We have, therefore, lesser unit cost of production as well as lesser unit cost of distribution. Scientific management reduces cost of production. Scientific marketing research ensures reduction in the cost of distribution. Marketing research can be used to reduce the cost of all components of the marketing mix including advertising. Reduction in costs enables corresponding reduction in prices. Competition in business also ensures price reduction and fair prices. Thus, consumers enjoy all the benefits of effective advertising and marketing. They can have increasing real income also in terms of goods and services.

5. Advertising builds up brand preference and brand loyalty. In the long run these are not possible under keen competition unless the brand quality is maintained and steadily improved by the manufacturer. Thus, consumers can get not only goods at lower prices but also goods of standard quality and quantity.

6. Advertising has educative value also. It teaches us to adopt new ways of life and higher standard of living. It can educate the community to demand quantity of life, *e.g.*, freedom from pollution.

Arguments against Advertisement

1. Loading the Price: Advertising is expected to reduce total costs due to mass production and mass distribution and ultimately enable consumers to buy at lower prices. Experience proves otherwise. In reality advertising increases the prices of goods. National brands demand heavy expenditure on advertising and promotion and their prices are higher by about 20 per cent than the prices of dealer brand though products under both brands are manufactured by the same enterprise. There is some element of truth in this criticism. However, it is due to extreme product differentiation resorted to by manufacturers through branding and higher prices are due to element of monopoly.

2. Creating Wastes: Advertising is wasteful. It can never appeal accurately to the target market like salesmanship. Many people may not read, hear or view your advertisement. Press, radio, and TV advertisements have short life span and relatively costly persuade unit of space or time. Competitive advertisement is a waste as it enables only reshuffling of customers—one company stealing customers from another. Measurement of effectiveness of all advertisement statistically is practically impossible. But research in advertising and distribution can enable a company to reduce waste of expenditure in advertising appreciably.

3. Monopoly: A few firms in an industry do utilise the weapon of advertising to prevent entry of small firms in the market and thus advertising enables creation of monopoly or oligopoly in the market. It kills competition and to that extent consumers' interest is sacrificed. Only giant manufacturers can afford to spend lavishly on extensive and intensive advertising to retain and even enlarge their market share. However, if government can effectively control and regulate monopolistic tendencies, we can have reasonable competition in the market. We have to crush monopolies in the world of business to protect consumers against evils of monopolies.

4. Fraud on Consumers: Some advertising is fraudulent, misleading or deceptive. Advertising causes us to buy goods, we do not want, at prices we cannot pay, and on terms we cannot meet. It is true that hard-sell, high pressure advertising does coerce the innocent and ignorant buyers to purchase many unwanted and shoddy goods. It is true that advertising often persuades people to buy things they should not buy, they do not need nor they can afford.

Public attitude toward advertising as a persuader is constantly unfavourable. This has been proved through opinion polls in the U.S.A in 1960s. Only self-regulation by business firms can ensure truthful advertising. The seller should ensure that his advertisements mean what they say and they say what they really mean. Consumer legislation can also prevent such abuses of advertising. Consumerism through self-help can also safeguard consumer interest against bogus advertising. Marketing mix based on marketing concept (consumer-oriented marketing approach) can also reduce substantially these abuses of advertising. Marketing research and customer-centred marketing plans and policies can definitely provide judicious and best use of advertising, sales promotion and personal selling in our promotion mix. Enlightened and scrupulous top marketing management can recognise consumerism not as an obstacle but challenge and primarily through self-regulation streamline the entire marketing process based on the new marketing concept, then only marketing communication complex (promotion mix) can deliver rich dividends and ensure bright public image of business concerns.

POINTS TO REMEMBER

1. **Advertising purpose:**
   - *(a)* Promotion of new product.
   - *(b)* Support to personal selling.
   - *(c)* Brand patronage.
   - *(d)* Immediate buying active.
   - *(e)* Pre-sold goods.
   - *(f)* Dealer support.
2. **Important Media**
   - *(a)* Mural advertising.
   - *(b)* Press advertising.
   - *(c)* Film advertising.
   - *(d)* Radio advertising.
   - *(e)* Television advertising.
   - *(f)* Transit advertising.
   - *(g)* Direct mail.
   - *(h)* Advertising speciality.
   - *(i)* Point of purchase advertising.
3. **Advertisement cow should :**
   - *(a)* Attract attention.
   - *(b)* Develop interest.
   - *(c)* Arouse desire.
   - *(d)* Generate action.

4. **Testing of Advertisement :**
   - *(a)* Copy testing.
   - *(b)* Media testing.
5. **Advertising agency — Functions and benefits of advertising agency.**
6. **Benefits of advertising :**
   - *(a)* Stimulates production.
   - *(b)* increase in employment and income.
   - *(c)* Mass communication.
   - *(d)* Provides relevant information to consumers.
   - *(e)* Facilitates mass productive and distribution.
   - *(f)* Builds up brand preference and brand loyalty.
   - *(g)* Educative value.
7. **Arguments against advertising :**
   - *(a)* Loading the price.
   - *(b)* Creating waste.
   - *(c)* Monopoly.
   - *(d)* Fraud on consumers

STUDY QUESTIONS

Part - A (16 marks)

(2 marks questions — answer in 4 lines)

1. What is advertising?
2. What do you mean by mural advertising?
3. What is transit advertising?
4. Give the meaning of advertising layout.
5. What is advertising copy?
6. Expand DAGMAR.
7. What is advertising media?
8. What is an advertising theme?

Part - B (24 marks)

(8 marks each — answer in 30 lines each)

1. Bring out the strengths and weaknesses of advertising as a promotional tool.
2. Narrate the specific purposes of advertising.
3. State the role of advertising as a communication process.
4. Analyse the factors to be considered while selecting advertising media.
5. Name the different media of advertising and analyse any one of them.
6. State the essentials of good advertisement.
7. Narrate the process of assessing and testing the impact of advertising on sales.
8. Briefly analyse the role of advertising agency in advertising management.
9. Put forward your arguments in favour of advertising.
10. Put forward your arguments against advertising.

Part - C (60 marks)

(15 marks questions — answer in 3 pages)

1. Briefly explain the different purposes of advertising as a sales tool and as a communication tool. Does it fulfil its purposes?
2. Describe the importance of advertising in the marketing strategy of a firm.
3. Enumerate the important advertising media and point out their relative role and advantages.
4. "It pays to advertise." Comment on this statement.
5. "Advertising is economically beneficial but not socially justifiable." Comment. ***(B.U. Apr. '99)***
6. Bring out a case for and against advertisement.

8

SALESMANSHIP (PERSONAL SELLING)

Salesmanship — Types of Salesmen — Essential of Effective Selling — AIDAS Formula — Qualities of a Good Salesmen — Sales Process — Points to Remember — Study Question.

SALESMANSHIP

A salesman is one who practises the profession of selling. Some of the definitions of salesmanship are as follows:

1. American Management Associations defines salesmanship as "the process of inducing and assisting a prospective buyer to buy a commodity or service or to act favourably upon an idea that has commercial significance to the seller."

2. The National Salesmen's Training Society of the USA defines salesmanship as "the ability to persuade people to buy goods or service at a profit to the seller and with benefit to the buyer."

3. Pearson and Wright define salesmanship as "the process whereby the seller ascertains and activates the need or wants of the buyer and satisfy these needs or wants to the mutual, continuous advantage of both the buyer and seller." Their definition of salesmanship is customer oriented. Hence, it honours the marketing concept, *viz.*, the customer centred marketing approach. It also points out that salesmanship is a positive-effort not merely persuading people to do what we want there to buy what will be beneficial to both the seller and buyer.

Personal selling or salesmanship refer to oral presentation in conversation (by a sales representative) with one or more prospective customer for the purpose of making sales.

No other tool of promotion is so strong as personal selling when it comes to convincing the prospect, closing a sale and transferring the title from seller to buyer.

Personal selling is highly distinctive and the only form of promotion involving face-to-face (direct) relationship or interpersonal interaction or communication between a salesperson and one or more prospective customers. Please note that personal selling is a two-way rather than one-way communication. Under modern solution-centred salesmanship, a customer's needs are viewed as problems and problems cannot be properly solved until they are defined. It is said that if the problem of the prospect is well told, the goods become more than half sold. Under communication process we have two flows of information. (1) Information about customer needs and wants yet to be satisfied. This is secured by the salesman from the prospect. (2) Information about merchandise and service which is supplied by the salesman to the prospect.

Due to seller-buyer interaction, personal selling alone can provide immediate feedback of information which enables a salesman to understand properly the buyer's mind, his problems, his needs and his preferences. Accordingly, the salesman can adjust his message, *i.e.*, his sales talk and sale presentation on the basis of the reduction of the prospect. He can put emphasis upon those selling points in which the prospect has most interest.

Features of Salesmanship

The fundamental features of salesmanship can be enumerated as follows:

1. High Pressure Salesmanship: In the olden days under the production and sales-oriented marketing concept, primary emphasis was on sales volume at any cost. Hence, before 1960, we used to employ high-pressure salesmanship under which innocent buyers were pressurised and hypnotised by their sales talk and dramatic sales presentation. Such salesmen could sell a refrigerator even to the Eskimo family living in an igloo. Buyers were compelled to buy things which they did not really want or things which they could not afford to purchase. Please note that high pressure salesmanship in the case of door-to-door salesmen was popular at one time. But it could not have repeat orders. It can never create a permanent customer or offer customer satisfaction during the post-purchase period. Under the modern marketing concept, high pressure salesmanship has no place at all. Modern salesmanship discounts such salesmanship. It is now based on problem-solving approach. Growth of consumerism and emergence of buyer's market also indicate that high pressure salesmanship has outlived its utility.

2. ***Salesmanship is Persuasion:*** Salesmanship involves the ability to influence or persuade people. It is the skill in handling people which makes for a successful salesman. The customer has to be led to favourable buying decision and the salesmen has to use all his skill to create a favourable impression in the customer's mind. Modern salesmanship does not rely on pressure tactics or compulsion to force a sale. It is only by the power of suggestion and imaginative handling that the customer has to be guided to a favourable decision.

3. ***Salesmanship is Winning the Buyer's Confidence:*** Modern salesmanship does not use doubtful methods of influencing buyer. Misrepresentation, cheating, dishonesty have no place in modern salesmanship. There is no attempt to take under advantage of the ignorance or credulousness of buyers. On the contrary modern salesmanship aims at winning the confidence of the buyer by providing a solution to the buyer's problem, by persuading him and educating him.

4. ***Salesmanship Aims at Mutual Benefit:*** Salesmanship is not the art of making a profit at the cost of the buyer. On the contrary, salesmanship should benefit both the buyer and the seller. The buyer obtains a solution to his problem, and satisfaction of his want. Salesmanship helps him in obtaining the maximum return for the money he spends. At the same time, it provides a reasonable profit to the seller. It enables the producer more, to increase his sales and his profits.

5. ***Salesmanship is an Education Process:*** Salesmanship educates people about their needs. Very often people are not aware of their needs or the way in which they could best satisfy them. Salesmen perform the function of the educating the customers about their needs and their satisfaction. They also provide information about the products available, their special features, and their utility in satisfying specific needs of customers.

6. ***Salesmanship is a Creative Process:*** Salesmanship is responsible for creation of demand (not through persuasion amounting to coercion) through a problem-solving approach. It starts with customer knowledge. It studies customer needs and problem through customer's viewpoint. It is said that if you want to sell Sita Samant you must know what Sita Samant needs, you must see Sita

Samant through Sita Samant's eyes. Hence, the first step is to learn buyer's problems, buyer's motives and habits. Then suggest a solution to his problems, his needs. Demonstrate how your product or service can fill the need or solve the problem. Such an approach needs a lot of creativity, initiative and empathy.

The Modern Concept of Salesmanship

The modern concept of salesmanship is very much different from the earlier concept. In the olden days a salesman was merely an order taker. He did more or less a mechanical job of showing the goods, waiting for an order and receiving the payment. He made little or no attempt to guide, help or persuade the customer.

The modern concept of salesmanship on the other hand, is based on the ideas of service. Modern salesmanship is creative in approach. The modern salesmanship tries to create needs, awareness of these needs and uses resourcefulness and imagination to persuade customers. It uses the problem-solving approach to ensure customers satisfaction.

Salesmanship: Art or Science or Profession ?

An art is a "skill in performance acquired by study, observation and experience." It is generally accepted that success in an art requires a certain inborn talent or aptitude. The development of a skill is based on this inborn talent or aptitude, or experience. Viewed in this manner, salesmanship is an art. Salesmanship requires a certain aptitude or talent, a certain type of personality. A salesman must possess a certain skill and this skill and this skill can be acquired and developed.

A science has been defined as "systematised knowledge." Science is based on certain principles and the accumulation of facts. It conform to, certain laws, theories and techniques. Salesmanship can be considered as a science. It is based on certain standard principles and theories. It accumated a sufficient body of systematised knowledge. However, salesmanship is not exact science comparable to physics or mathematics. It is a science based on human psychology, It can be considered a *"Social Science"* akin to sociology or economics.

A profession is an employment requiring a certain degree of skill or specialisation. It is usually controlled by a public body. It requires a certain degree of proficiency, examination by the professional body and the setting up of a code of conduct. A profession is bound by professional ethics and considers service as its primary motto. Salesmanship today cannot be unhesitatingly called a profession. It has, however, the makings of a profession and is capable of growing into a profession. In the near future salesmanship may achieve regular profession status and recognition.

A professional salesman sticks to generally accepted code of moral conduct that includes honesty and sincerity and presumes a fair exchange of values as represented to the buyer. He constantly strives toward perfection. The knowledge of three fundamentals — personality, product and prospect — together with complete mastery over sales process and salesmanship reflects the attributes of professional salesman.

TYPES OF SALESMEN

There are three fields of salesmanship in the machinery of distribution: (1) Industrial salesmanship, (2) Merchant salesmanship, and (3) Consumer salesmanship.

1. Industrial Salesmanship

Buyer-seller interdependence and product complexity are the two unique aspects of industrial marketing. Both the representative of the selling organisation and the representative of the buying organisation are professional and experts in their own line. The interaction takes place between these two professionals.

Industrial salesman may need a technical background in engineering or chemistry to understand the problems and know the language of technically trained purchasing agents. Frequently more than one person must sell the concept before a purchase is approved. In most industrial selling. salesman must adopt problem-solving approach. What his goods or services will do for the customer is of paramount importance. The sophisticated purchasing agent looks for results in the form of increased sales or lower costs, or both. Industrial buyers are appealed mainly through rational buying motives. Usually, we have direct sales (by-passing the wholesaler and retailer) conducted through face-to-face communication between the manufacturer's representative and the industrial customer. For certain industrial goods such as components, spare parts, office supplies, consumable goods, we have industrial distributors as resellers. Personal selling enjoys the lion's share in industrial marketing, as the tool of promotion and distribution. Advertising plays a secondary and supportive role in industrial marketing facilitating the job of industrial salesman. In fact, industrial salesman is the company to industrial customer. The reputation of the company (source) which the salesman (communicator) represents plays a very important role in the buyer's decision to purchase. Salesman must know thoroughly his product, his customer and his company. Customer service including helping the customer to sell his customers is more important than the physical product itself.

Industrial salesman may represent manufacturers, industrial distributors or wholesalers, manufacturer's agent, or mill supply house. For highly technical products sales engineers having mechanical, electrical, and chemical training are employed to study customer problems, recommend proper equipment, supervise its installation and train users in its operation.

2. Merchant salesmanship (Wholesale Selling)

Merchant Salesmanship involves quantity selling of all types of consumer goods (convenience, shopping and speciality goods) to resellers. They operate in the customer goods market as well as in industrial goods market. The customers of merchant salesman are: (1) Wholesalers, (2) Distributors, (3) Retailers, (4) Cooperatives, (5) Institutions, and (6) Industrial buyers. They operate mainly in the resale market. Merchant salesmen also operate in the service markets for selling services, *e.g.,* advertising, communication, laundry, etc.

The merchant salesman may act as a sales representative of manufacturers, selling direct to wholesalers and large-scale retailers, of as a sales representative of wholesalers/distributors selling merchandise to numerous dealers and retailers.

We have four varieties of merchant salesmen: (1) Speciality salesman, (2) Missionary salesman, (3) Creative-salesman, and (4) Detail salesman.

1. Speciality Salesman: He is called upon to sell consumer specialities such as vacuum cleaners, refrigerators, cosmetics, books, etc.,as well as business goods, such as industrial products, material supplies, etc. These salesmen specialise in introducing new products or innovations in the market. They adopt the techniques of aggressive salesmanship.

2. Missionary Salesman: Missionary salesmen are responsible for promoting sales and creation of demand. They help merchants in arranging store displays, planning store sales, training salesmen of retailers, preparing advertisements of retailers and helping in all merchandising activities. Missionary salesmen assist dealers in all types of sales promotion activities at the point-of-purchase. They also act as store demonstrators to distribute samples or demonstrate products for customers who come into the retail stores.

3. Creative Salesman: He is a salesman who seeks to introduce a new product or a new brand into the market and create a demand for such a novelty. He is a pioneering salesman. He cultivates and develops sales territories. He is responsible for preparing a lot of spadework. He is also described as missionary or crusader. He is diametrically opposite to a mere service salesman or counter salesman in a retail shop. Hence, mere order collection and servicing of orders assume secondary importance for a creative salesman. He creates a new business, a new market and new customers, and so on. A service salesman merely maintains or carries on an established business.

*4. **Detail Salesman:*** Detailing is a form of specialty selling. The detail salesmen visit doctors, dentists, architects, engineers to sell them on recommending a product to their clients. Medical representatives of drug manufacturing companies are detail salesmen. They visit physicians, hospitals and drug middlemen to inform them about the new products and to induce them to recommend these products to their patients or clients.

3. Consumer Salesmanship (Retail Sale)

While advertising attracts prospective buyers to the retail store, the sale depends upon counter salesman of the store. The retail salesman helps the customer to take purchase decision, to buy here *i.e.*, in the store and to buy now i.e., on the spot: The counter salesman also creates store patronage and store loyalty to ensure repeat purchases by customers.

We need consumer (retail) salesmanship for selling high cost articles, *e.g.*, automobiles, refrigerators, television sets, appliances, expensive clothing etc.

We have inside (indoor) consumer selling in retail stores as well as outside (out door) selling to consumers in their homes or offices. Door-to-door canvassing and selling is done by travelling salesmen.

There are three types of outside (outdoor) consumer salesmen. The route salesman who follows a regular route serving consumers e.g., baked goods or laundry. The independent consumer salesman sells on his own account *e.g.*, street vendors, pedlars, mobile retailers. The controlled consumer salesman. is the employee of manufacturer, retailer or insurance company. He may be employed for door-to-door selling. Many manufacturers may by pass the usual channels of distribution and sell their products directly to the final consumers right on their own homes or offices. Insurance agents or salesman sell the service of insurance to the people. Similarly, tangible goods like kitchen-ware, magazines, books, appliances cosmetics are sold through outside consumer salesmen.

The basic principle of selling apply equally to: (1) The retail salesman, (2) The wholesale salesman. (3) The salesman of consumer goods, (4) The industrial salesman, and (5) The salesman of selling services, such as insurance, finance, consultancy, advertising, etc. The procedures are similar. The goals are the same. Each field can offer creative selling opportunities.

CHART

Different Types of Salesmen

Industrial Salesmanship	Merchant Salesmanship	Consumer Salesmanship
	1. Specialty Salesman	1. Indoor Salesmen
	2. Missionary Salesman	2. Outdoor Salesman
	3. Detail Salesman	

(All are travelling salesman in charge of a specific sales territory)

Notes:

1. Industrial salesmanship represents professional salesmen with necessary technical background. Rational buying motives are more important.
2. Merchant salesmanship represents salesmanship at the resale level. They are employed by manufacturers and wholesalers or industrial distributors.
3. Consumer salesmanship represents salesmanship at the retail level for selling all the types of consumer goods to consumers either in the retail stores or in the homes or offices of consumers.
4. Model salesmanship discounts high pressure tactics and aggressive sales personality to overpower the customer, hypnotise him and extract orders at any cost. Such types of salesmen are regarded as nuisance by customers. They cannot get repeat orders and build up continuous buyer-seller relationships. Under high pressure salesmanship, we do not have a solution to a problem and consumer satisfaction on a long-term basis.
5. On the basis of goods and services sold, we have salesmen for tangible goods, such as, television set, and salesmen for intangible goods, such as insurance services. Some times, we may classify salesmen on the types of job they do, *e.g.*, creative and service salesmen. The usual classification is: (1) Retail salesman, (2) Wholesaler's salesman, (3) Manufacturer's representative and (4) Industrial salesman.

Advantages of Salesmanship

Personal selling is the most important ingredient in the promotion mix. It is the largest single operating cost accounts for 20 percent of net sales in many enterprises. The following are the relative advantages of personal selling.

1. A salesman can pinpoint prospect, whereas advertising cannot distinguish precisely a prospect from a suspect. It is a means of mass communication and not an individual communication.

Hence, there is minimum waste of effort and expenditure in personal selling communication.

2. Personal interview in salesmanship assures attention and interest of a prospect. Personal selling has flexibility. Sales talk and sale presentation can be advertising. Even the best advertisements may attract attention and interest of hardly 60 per cent of viewers or listeners or readers.

3. Advertisement has a broad sales message. It cannot be adjusted to reaction and objections of any one prospect. Salesman can adjust sales presentation on the spot to meet objections and reactions of his prospect in order to gain action.

4. Advertising can attract attention and arouse interest but usually it is left to the salesman to close the sale and effect transfer of title.

5. Actual demonstration of the product or its use is recongnised as the most powerful means of convincing. Advertising (except TV Ads) cannot use demonstration. But salesmen can use it easily.

6. Personal selling is the best means of two-way communication continuously between the company and its customers. Top management can be fully informed about many vital matters such as competition, customer reaction and comments, market trend, dealer demands, etc. This feedback of information cannot be adequately achieved through other means of promotion and distribution. In retail trade we need personalised services and relations with customers and these can be offered only by salespersons.

Limitations on Salesmanship

1. The greatest limitation is the high cost of personal selling particularly in inflationary conditions. The cost of developing and maintaining efficient sales force is quite high.

2. Good and competent salespersons are scarce. When compared with other occupations, sales profession is becoming less attractive. General shortage of sales force in the West has compelled retailers to depend more and more on self-service principle. That is why self-service stores are popular in many Western countries. However, many big companies select and train their sales force and systematically develop their salespersons at personal selling, though costly, is very effective and indispensable.

Table 8.1 : Comparison of Advertising Selling
Personal Selling vs. Advertising

No.	*Personal Selling*	*Advertising*
1.	Directed at the individual	Directed at mass audience
2.	Personal, direct contact	Impersonal, indirect contact
3.	Working in depth	Working in breadth
4.	Two-way traffic of communication	One-way flow of communication
5.	Direct and quick feedback	Organised and delayed feedback
6.	High level of adaptability	Less directly adaptable
7.	Effective	Less effective
8.	Less efficient — expensive and time consuming	Efficient — cheaper per contact
9.	Push effect	Pull effect

Notes:

Personal selling is both most effective and also the most expensive. In general the cost ratio of personal selling to advertising is 3:1. Since 1961 due to rising trend of wages and social benefit cost, selling cost per sale contact are also increasing steadily. Advertising costs, on the other hand have decreasing tendency due to new means of communication like radio, television, etc.

In mail order industry, advertising is used exclusively. In insurance industry, insurance services are sold almost entirely by personal selling. In consumer goods, market advertising is the main promotion tool. In industrial marketing, personal selling is usually dominating.

Similarities between Advertising and Selling

As tools of communication advertising and selling need to be understandable, interesting, believable and persuasive in order to achieve their purpose. In terms of perceptual process, both must penetrate the sensory mechanisms (*e.g.*, sight and sound) of the customers or prospects in order to be effective in modifying attitudes

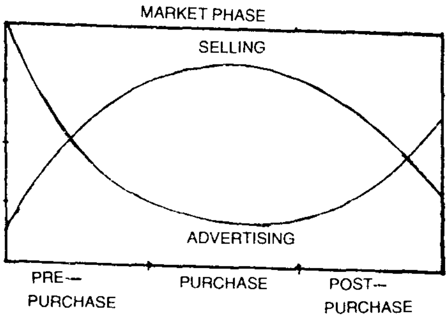


Fig. 8.1 Relative Importance of Selling and Advertising

and preferences of buyers. In terms of cognitive process, both are designed to induce favourable thoughts toward the company, its products and services, and its people. Both aim at conveying an image of *different* and *better* as against rivals. Both try to induce favourable feelings.

If the market is considered as having three phase, pre-purchase, purchase, and post-purchase, it is obvious that advertising fits mainly in the pre-purchase and post-purchase phases. In the pre-purchase stage it acts as a market cultivation force and prepares the market for personal selling efforts. In, the post-purchase stage it provides a rationalisation to the buyer-reassuring him about his wise purchase. Rarely advertising can achieve the purchase action. In contrast, personal selling is of importance in all three phases as indicated in the figure given above.

ESSENTIALS OF EFFECTIVE SELLING

There are six prerequisites of effective selling: (1) Know your company, (2) Know your product, (3) Know your competitors and their products, (4) Know your customers, (5) Know the process of selling, and (6) Know yourself :

1. Knowledge of Your Company: Most products, especially a costly and complicated products, are not judged on their own merits. They are judged by the name of the company that manufactures them. Hence, salesmen must be company-oriented. A salesman is the company to most buyers: He is regarded as a representative of the whole company. Therefore, he should learn everything about his company. The facts about the company must be at his finger-tips. Prospects may wish to know about policies, procedure, service facilities, discounts, guarantees, and so on. As a sales representative, you must satisfy all queries of prospects about your firm so that they may decide to do business with your firm.

2. Knowledge of Your Product: A salesman should know all about his product : *(a)* Materials from which it is made, *(b)* How it is used and how it is maintained, *(c)* Product features, *(d)* Customer benefits, *(e)* Selling points of the product in relation to its rivals, and so on. Without adequate knowledge of the product, a salesman cannot convince the prospect and convert him into a customer.

3. Knowledge of Competition: A salesman should constantly study the products offered by his competitors and determine their strengths and weaknesses in comparison to his own products. Awareness of competition enables a salesman, if necessary, to compare his product with that of the rival on those points in which the buyer seems most interested. Competition should be brought up only when a buyer insists on comparison. Thorough knowledge of the company, its products and its competition constitutes the solid background of essential information for effective selling. Buyers have faith in well-informed salesmen. Then again knowledge gives salesmen confidence in themselves.

*4. **Knowledge of Your Customers:*** A salesman must have adequate knowledge about both the customer's wants and desires, and the products offered by the firm to satisfy customers. The matching of supply with demand is impossible without knowledge of your customers representing the demand side of the match. A salesman must find out as much as possible about the customer's wants. Product can be tailored to those specific requirements. The sales presentation should be closely related to the consumer's buying process. Buyer behaviour involves perception, motivation and learning processes. Salesman must have know the reasons customers might have for buying his products. Hence, he must have adequate knowledge of buying motives — rational, emotional and patronage motives. Sales presentation cannot be effective unless a salesman knows sociopsychological factors influencing buyer behaviour.

*5. **Knowledge of Selling Process:*** Selling process runs closely parallel to the consumer's buying process. To move the customer through the stages in the buying process (perceived want, search for information, purchase, use and evaluation) the salesman undertakes the stages in the selling process, *viz.*, prospecting, preparation, presentation and post-sale activities. Prospecting is similar to seeking function of marketing. Salesman identifies buyers who have both ability to buy (purchasing power) and willingness to buy (motivation). Preparation is similar to the matching function of marketing-matching the supply with demand. The sales presentation is closely related to the buying process of consumers. The salesman uses AIDAS formula — Attention, Interest, Desire, Action and Satisfaction. Post-sale activities are order writing, arranging for its execution, and facilitating grant of credit, if necessary. The customer should be reassured on his wise purchase decision. Post-sale contacts reduce customer dissonance or dissatisfaction and assure repeat orders.

The Personal Selling System

The systems approach is useful for understanding the elements of personal selling strategy. The sales system (selling process) under the systems approach is diagrammed in the following figure.

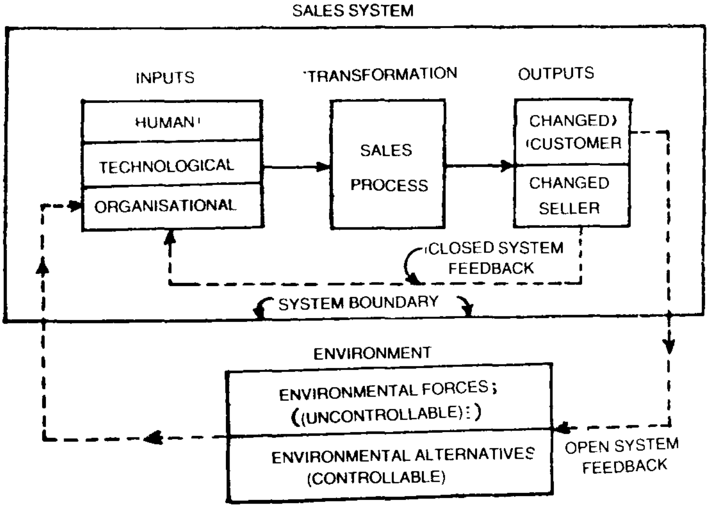


Fig 8.2 A System Model of the Selling Process

Inputs from Environment

The environment provides the inputs to the sales situation. The sales manager selects most favourable combination of inputs, *e.g.*, human, technological and organisational resources in order to fulfil his sales objectives. This selection will bring together a consumer, a salesman, set of selling techniques, and form of organisation.

1. ***Human Inputs:*** Human inputs come from the salesman, customer, helpers of customer, other sales staff. Customer brings spending power. Salesman brings product offerings. Both also bring a set of expectations in the sales situation. Salesman expects order as a desired outcome. Customer expects utilities and satisfaction against his spending power.

2. ***Technological Inputs:*** Technological inputs refer to the whole complex of factors relevant to the sales process, e.g., order forms, showroom, sales and advertising organisation. Sales task itself is an interesting technological input. Sales technique such as salesman's tact, diplomacy, persuasiveness and empathy are sales tools which can be learned and sharpened in the sales situation. Such technology consist of bargaining power, and ability as well as information in regard to product, price, selling firm, etc. Customer also has information supplied by advertising and sales promotion. Please note that personal selling represents the best example of interpersonal interaction. The consumer is acted upon by the salesman. The salesman persuades the consumer to buy his product. The consumer also acts upon the salesman. Consumer also persuades salesman and tries to strike a bargain.

3. Organisational Inputs: Organisational inputs refer to the hierarchy of goals, policies, and procedures specific to a situation, including the system of reward and the division of labour. The sales organisation affects salesman's motivation as well as customer satisfaction or dissonance generated from the sales process.

Transformation Processing

The transformation process is influenced by the combination and working of the inputs mentioned above. In the interpersonal interaction between the salesman and the customer, we come across the modifications and alterations of the attitudes and behaviour of both the parties in face-to-face communication. A successful sales encounter occurs when: (1) the characteristics of consumer are credible and trustworthy; (3) the consumer is susceptible to persuasion; (4) the salesman impresses the buyer — favourable impression on the buyer. Empathy, or placing yourself in the shoes of another (buyer), has been regarded as a vital principle of successful selling.

Feedback

Feedback refers to the returned flow of information from the sales encounter. Such information can be used to modify any of the sales inputs (closed system) or to seek new inputs from the environment (open system). Buyer may seek environmental feedback in the form of social approval to validate the deal he made. He may reduce disappointment by rationalising his purchase, or by asking his friends not to purchase that product. The performance of a salesman may be evaluated by the sales manager or even by other salesman.

Outputs

The effectiveness of the system and its very survival depend upon transforming the prospect into a buyer who will (1) return for repeat sales, and (2) recommend the selling firm to his friends and connections. Both the consumer and the salesman must have satisfaction from the sale. Consumer attitudes after purchase are also the outputs. Consumer may get additional information about the product, price, selling company and salesman.

What is a Customer?

The customer is the focal point of the marketing mix. He is not dependent on the seller. In reality, the seller is dependent upon him. He is not an interruption of seller's work-he is the purpose of it. A customer does the seller a favour when he meets the salesman — the salesman is not doing him a favour by serving him. Let the salesman remember three things.

1. A customer is the most important asset a marketer/seller can have.
2. A customer is the hardest thing to get.
3. A customer is the easiest thing to lose.

'Sizing-up' of Customers

A knowledge of the various types of customers, their attitudes and behaviour, and the ability to recognize and handle them, is also a fundamental requirement for success in selling.

A salesman must be aware that all customers are not alike. (Many men, many minds). Each customer has his own personality, his own psychological make-up. All customers will not think or react in the same way. They have different backgrounds, different sets of values, different habits, and different frames of reference. A good salesman must be able to recognize these individual traits (mental peculiarities).

Diagnosing or "Sizing up" customer is an important prerequisite to his proper handling. A salesman can size up a customer reasonably well, by proper observation. The carriage or bearing of the customer, the way and purposefulness with which he enters the shop, says a lot about his character. The clothes he wears are an indication of his taste, and his ability to spend. Conversation with the customer is a very useful source of information about his nature, his attitudes, his likes and dislikes. His actions and expressions are also a guide to his character. An observant salesman can obtain a wealth of information about the customer from his observations.

The purpose of sizing up is to determine the strategy to be adopted in dealing with the customer. A nervous customer must be dealt within a helpful sympathetic manner. An argumentative or suspicious customer must be handled skilfully, convincingly. A handicapped customer may require special treatment. A pompous, snobbish customer must be tactfully dealt with.

Types of Customers

The salesman through keen observation and study can trace the individual peculiarities of his prospect or customer and on the basis of this knowledge, he can adapt his sales talk to secure favourable result.

There are a few indicators generally used in the 'sizing up' of a customer, *i.e.*, to judge the type of customer to whom he wants to sell his goods. (1) The carriage or the manner in which the customer enters the shop, (2) The dress, (3) The way of his conversation, (4) His expressions and actions during the sales talk, *e.g.*, whether he is pompous or a snob or a suspicious customer.

Of course, no ready-made formula or prescription is possible to describe the type of a customer. Each case shall have *individuality*, demanding peculiar or special treatment. However, broadly speaking, we may describe a few important types of customers.

1. The Impulsive Customer: He is led by impulses. Logic plays a minor role. He takes quick decisions. He may have quick temper. He has no patience. A salesman should have a brief talk with such a customer.

2. The Timid or Nervous Customer: He is nervous and lacks self-confidence in decision-making. The salesman should guide him in the decision-making process. If the salesman wins the customer's confidence, sale becomes easy.

3. The Snobbish Customer: He is egoist, pompous and self-centred. The salesman should satisfy his vanity. A little praise and flattery can secure order. Give him compliments and gain action. The salesman through his sales talk should promote the importance of the customer. It you belittle him, he will be antagonistic.

4. The Deliberate Customer: He is practical but of thinking nature. He may ask many questions. He demands adequate information. He wants thorough examination of the product. He has to be fully convinced through elaborate sales talk and sales demonstration. Usually, facts and actual demonstration appeal to him most.

5. The Argumentative Customer: He is interested in making arguments. He will challenge every statement of the salesman. If the customer wins the argument, the salesman gains action, but if the salesman wins the argument, he is bound to lose the order. The salesman must have cool temper and a lot of patience to deal with such a customer. Tact is also necessary.

6. The Price-Minded Customer: In a country where standard of living is low and income is usually lower than the expenditure, customers are primarily interested in the price. Lower price appeals to them most. The customer is always cost conscious. The salesman with tactful arguments will have to convince such a customer that price should be considered in relation to quality, durability and performance. Low-priced goods may be inferior in quality and may not have durability or may not give expected service and they may not be really cheaper in the long run.

*7. **Women Customers:*** It is said that a woman has sharper senses and keener tastes than that of a man. They cannot be easily pleased. They are fastidious and discriminating by temperament. They are slow in making decisions. They want lower price and good quality. This is not possible always. However, economy or lower price ultimately wins the woman customer. Jealousy, envy and vanity are their soft corners to secure sales. They welcome royal treatment. They love latest styles and fashions. In many countries, more than 60 percent of family purchases are made by women. Hence, they deserve special VIP treatment.

*8. **The Talkative Customer:*** Some buyers are very talkative. They are not good listeners. They go on talking on any subject. The salesman must show due courtesy. Patient hearing and tactful handling can help a salesman to deal with such buyers. It is some what difficult to divert his attention towards sale. But after patient hearing to his talks, he can be converted into a customer with your short and sweet sales talk.

*9. **The Silent Customer:*** He is always calm and inactive. He is a very difficult type of customer. The salesman does not know what is going on in the mind of the silent customer. In absence of objections raised by the customer, salesman cannot convince him and sales talk cannot be developed effectively to gain action. Sometimes silence becomes very trying and the salesman must have adequate patience. The salesman must not develop a fear complex due to the customer's trying calmness. Tact, courtesy and friendliness enable the salesman to win even a silent or calm customer.

*10. **The Suspicious Customer:*** He may be critical and even unfriendly. He never believes the salesman. He doubts every statement of the salesman. He is always afraid to enter the trap of the salesman. He is satisfied by concrete proofs and actual demonstration or performance. The salesman must have adequate patience and persistence to capture such a disbelieving customer.

A-I-D-A-S FORMULA

The salesman, in order to effect a sale, must persuade the customer to buy his product. This act of persuasion needs proper planning of the strategy and tactics. The customer must be taken through certain stages of the mind. These stages are very effectively summarised by what is known as the A-I-D-A-S formula. The stages are as follow:

*1. **'A' Attention:*** It is the starting point in the sale process. The attention the customer must be attracted to the product, the want that the product is able to satisfy, and the buying motive to which the product appeals. Unless the customer's attention is secured by the salesman, sale process cannot be developed further.

2. 'I' Interest: The salesman must create an interest in the mind of the customer. The customer must be made to realize how the product-will benefit him, and must feel curious to know more about the product, its features, and its merits. Further sales talk or sales demonstration will be useless if the customer is not interested in the product.

3. 'D' Desire: Salesman must ignite the desire of the prospect after securing this attention and after arousing his interest in the product. From the stage of interest or curiosity must develop the desire to buy the product. The salesman must use all his power of persuasion and conviction to create an urge to buy. This requires the creation of a want, the appeal to a predominant buying motive, and the matching of the buying motive with the selling points relating to product.

4. 'A' Action: It means gaining an order. The culmination of the first three stages should be in the actual purchase of the product. The customer must be induced to buy the product or place an order for the product. The want must be converted into demand. Gaining action means consent of the buyer to purchase the product. It indicates his final decision to purchase and he places an order.

5. 'S' Satisfaction: Follow-up or post-sale contact is necessary to ensure customer satisfaction and to remove any post-sale problems. It is also a source of feedback from the customer. Service after sale is also necessary in the sale of many costly and durable consumer goods. Satisfaction leads to repeat orders.

QUALITIES OF A GOOD SALESMAN

There are only two basic requisites for successful salesmanship: (1) Empathy, and (2) Ego drive. The first requisite is the ability to empathise — to understand the feelings, the mood and the role being played by his customer so that he may adjust his own role in such a manner that the interplay of communication is complementary rather than crossed. Empathy is ability to identify with the customer, his thoughts, feeling emotions. A salesman with empathy senses the reaction of the customer and is able to adjust his sales talk to these reactions. Ego drive indicates the personal need to make a sale, as a measure of self-fulfilment and not just for the money. Empathy coupled with intense ego drive (craving for achievement of the set goal) enables a salesman to influence the buyer effectively and make the sale. He has the drive, the need to make the sale, and his empathy gives him the connecting tool with which to do it.

The success of a salesman depends to a very great extent on his ability to impress his customers. The development of a good sales personality is, therefore, an important requirement for his success.

Personality is the sum total of the impressions made on people with whom one comes into contact. These impressions are the result of many qualities that one possesses. The qualities that go into the make-up of a successful salesman can be broadly divided into four categories: (1) Physical, (2) Social, (3) Mental, (4) Character qualities.

A successful salesman develops a sales personality by developing certain qualities. The physical qualities such as pleasing appearance, cheerful smile and good health create a favourable first impression. Social qualities like good manners, politeness, helpful attitude and tact help him to secure goodwill and social acceptability. His power of observation and memory, imagination and initiative, self-confidence and determined effort, prepare a suitable mental make-up. His character, with honesty, loyalty, industry and perseverance endear him to his customers who come to rely on him.

Physical Qualities

A good physical appearance is a very big asset for a salesman. The first impression that a salesman makes on his customers is the most important impression. Whether a customer takes interest in the salesman, allows himself to listen to, and be guided by the salesman or not, depends on the favourable first impression that the salesman is able to create. A good physical appearance also gives the salesman more self-confidence.

A salesman must be well built and free from physical defects. He must take sufficient care of his appearance. Good grooming, appropriate dress, clean and tidy appearance, a good posture, and poise go a long way in creating a good first impression.

A salesman must always have a cheerful smile on his face. A smile is considered the mirror of the mind. A good, natural smile can remove tension and awkwardness in the sales interview. Smiling face and humorous nature enable a salesman to enter the mind of a prospect easily during a sales talk.

A good salesman will also take care of his health. A salesman who is not healthy cannot maintain a pleasing appearance. He will also not be able to carry on his duties efficiently. Good sound health is, therefore, an essential part of a salesman's personality. There is a very close relation between your physical health and mental health. Sound mind lives only in a sound body.

Social Qualities

A salesman is required to move in different circles, meet many customers and get along with them. He must, therefore, develop a good social behaviour. A salesman must always cultivate good manners. He must always be polite and respectful and never become unduly familiar with his customer. Courtesy in dealing with customers, the practice of greeting and thanking his customers, using polite expressions, and a sincere desire to please are very necessary for success in salesmanship. A salesman must also be tactful. He must be able to put things in the correct manner in front of his customers. He must never say or do anything which may antagonise his customers.

A desire to meet people, helpfulness and co-operative attitude, and a likeable disposition are essential for a successful salesman. A salesman must be an extrovert (directed outward and not self-centred) and must be a good mixer. The ability to make himself socially acceptable, to mingle with any group, to adapt himself to customers with different attitudes, norms of behaviour and standards of culture will stand a salesman in good stead in his professional career. A person with a social temperament alone should take the job of a salesman.

Mental Qualities

The mental make-up of a salesman must be conducive to success. A salesman must have a good power of memory and observation. He must be able to recognize customers, their characters, their buying motives, and adjust his sales talk accordingly. He must be alert and always on his toes. Absent-minded person cannot be a good salesman.

Imagination and initiativeness are very useful qualities for success in dealing with a customer. A salesman must be able to handle difficult situations independently and on his own initiative. He should not require continuous direction and goading. He must be resourceful. He must have creative mind. He must develop empathy, *i.e.*, putting himself in the buyer's position.

The science of selling is to know what wants to arouse; the art is to develop empathy, step into the shoes of the buyer and feel those wants personally and then get the prospect to feel them. This mental quality of reading the thought or mind of the prospect has to be developed. It is called empathy.

Self-confidence is necessary for success in any sphere of activity, more so in case of a salesman. The ability to rely on oneself gives self-confidence. A self-confident salesman will also inspire confidence in his customers. Determination and drive are also very important for success. The proper management of time and a systematic attitude are two traits which will help a salesman in the successful completion of his duties.

Moral or Character Qualities

Honesty and integrity are essential character qualities of a salesman. Customers must be willing to depend on the salesman, willing to be guided by him and to rely upon his statements. Creation of goodwill and a name for fair and honest dealings are essential in business. A salesman must be loyal, both to his employer and to his customer. This may appear contradictory,but in fact, it is not so. The success of the employer depends on the goodwill of the customer. Therefore, a salesman who is loyal to his customer will also benefit his employer. Industry and perseverance are other qualities which a salesman must develop in order to become successful.

Development of the Personality

A salesman may not be born with all the desirable qualities listed above. Some of these qualities are inborn or hereditary. Some qualities are developed through the environment and way of bringing-up. However, a salesman can improve his personality by taking stock of his own qualities -good and bad-and making a conscious effort to build up and reinforce the desired qualities. It is also to be noted that the absence of certain qualities can also be compensated by the development of certain other qualities. For instance, a salesman who is not good-looking can make himself popular and acceptable by virtue of his amiable disposition, helpfulness and politeness. Self-examination and self-improvement can always prove to be rewarding.

There are twelve basic qualities of character in salesmanship: (1) Sociability, (2) Simplicity in thought and expression, (3) Curiosity, (4) Imagination, (5) Creativity, (6) Initiative, (7) Confidence, (8) Enthusiasm, (9) Ambition, (10) Courage, (11) Sincerity, and (12) Reliability.

Conclusion

The successful salesmen are really made because they go about developing Knowledge, building up Attitude, imbibing Skills and cultivating good Habits. The first letters of these characteristics — KASH — gives more CASH in the pocket of the salesmen and make them reach the height of success which other average salesmen only dream of attaining. Please note that a salesman must develop positive, dynamic and cheerful attitude.

An ideal salesman plays multiple role, such as professional consultant and guide, public relation officer, a market research investigator (ears and eyes of marketer), all rolled in one.

THE SALES PROCESS

The communication view of the selling process is a much richer and comprehensive view of salesmanship. Personal selling is an oral presentation in conversation (by salesperson) with one or more prospects for the purpose of making sales. Hence, we have the interpersonal communication of the interaction between the buyer and the seller. Both are active participants in the direct face-to-face communication. Both function as sender and receiver of messages. Both try to influence each other. The process of selling involves a number of steps such as: (1) Pre-sale preparation, (2) Prospecting, (3) Pre-approach and approach, (4) Sales presentation or sales interview, and (5) Post-sale activities. The sales presentation or interview may adopt the AIDAS formula (attention, interest, desire, action and satisfaction). Objections raised by the prospect are handled during the interest and desire stages. The climax of sales presentation is the securing of action, *i.e.*, purchase. Following up is necessary after securing purchase. It will check buyer's satisfaction and reduce his dissonance (after purchase anxieties and doubts) if any. Post-purchase activities assure buyer satisfaction and repurchase. Let us describe in brief the usual steps of sales process.

1. Pre-sale Preparations: Anticipating the sale means getting ready. A salesman has to serve the customer. He must identify a customer's problem, solve that problem and prescribe a solution to the customer according. To do these things, a salesman must be familiar with the product, the market and the organisation and the techniques of selling. He must know his customers, their unsatisfied needs and their problems. He must know himself and his company. He must know buying motives and buying behaviour of the customers or prospects to whom he has to sell his products. He should be aware of current competition and market environment in which he has to operate. Background knowledge (of the company, its products and its rivals) constitutes the essence of pre-sale preparation.

2. Prospecting: A salesman has to seek potential customers who are called prospects A prospect means a probable buyer-the one who brings prospects to the seller's business. A prospect is one who has an unsatisfied need, ability to buy (purchasing power) and willingness to buy (motivation). Prospecting relates to locating of prospects. They can be located through present customers, other salesmen, use phone directories, or by direct cold canvassing (calling on strangers and developing contacts by scouting out leads). Located potential customers have to be qualified, *i.e.*, they must have need, purchasing power, inclination to buy and buying authority or power. These qualified prospects must, of course, be accessible to the salesman. Prospecting is similar to the seeking function of the total marketing activities.

3. ***Pre-approach:*** Once a prospect is located and qualified, salesman should find out his needs, problems to be solved, his preferences, personal habits, nature, behaviour, etc. The product has to be tailored to the specific requirements of the customer. On the basis of adequate information of the customer wants and desires, salesman can prepare his plan of sales presentation or interview. The sales presentation must match to the needs of the individual prospect. It should enable the salesman to handle his prospect smoothly through the buying process, *i.e.*, during the sales talk.

4. ***Approach:*** The third step is the stage where the salesman comes face-to-face with the prospect. The approach consists of the two major parts — obtaining an interview, and the first contact. The salesman may use various means of obtaining an interview. He may use the telephone, obtain an introduction from a customer, or use his business card. What is more important is the first contact.The salesman must be able to attract the prospect's attention and get him interested in the product. It is very important to avoid being dismissed before he can present his product.

5. ***Sales Presentation:*** Once the salesman has sought and found potential customers and he has matched their wants with his product, he is ready to formally present that product to the customer. The sales presentation should be closely related to the buying process of customers. It should be in the language the prospect understands. The sales interview should generally go according to AIDAS theory. Scouring attention is the first step. Attention is attracted through proper approach Gaining interest is the second step. Many devices are used to arouse and increase interest in the product. Salesman can do this through lively and interesting sales talk as well as through actual demonstration of the product and interesting sales talk as well as through actual demonstration of the product and its operations wherever feasible. Product or sample can be shown. Visual aids can be used in sales demonstration. Sales presentation should be clear, concise, to the point and positive. A planned sales presentation is more effective. Some companies have standardised sales talks which can be used with a few modifications if the situation demands. After explaining the product characteristics and expected benefits, the salesman should find out the customer's reactions and objections These objections or doubts should be welcome and they should be answered with confidence. The customer should be satisfied on all his doubts. Objections and reactions represent feedback to salesman's communications. They reflect growing interest of the customer in the product. Genuine objections should be interpreted correctly and removed tactfully. The prospect must be convinced about the benefits, expected performance and services of the product. The ability to face and meet a buyer's objections is acquired with time and experience.

A good presentation must satisfy four main objectives: (1) It must be complete; that means, it must cover every point which is likely to influence the prospect. (2) It must be clear, and should leave no misunderstanding or vagueness in the prospect's mind. (3) It must remove competition by providing that the salesman's product is definitely superior and is the only product that will satisfy the prospect's want. (4) It must win confidence of prospect that the salesman's statements are true and that the salesman is honestly trying to help the prospect.

The salesman uses the sales talk and a demonstration of the product, if possible, to achieve these objectives. He may also make use of testimonials, guarantees, and other means of creating confidence. He uses comparisons and test to prove the superiority of his product.

A salesman can learn the empathetic ability. It is the ability to sense the reaction one produces in another person and to understand his thoughts and feelings. Thought reading of the prospect enables a salesman to anticipate buyer's objections and relations and meet these to buyer's satisfaction. The problem solving approach should be adopted by the salesman. The product offered on sale must offer adequate solutions to buyer's needs, difficulties and specific problems. As objection should be regarded as cue that your sales presentation is not yet convincing enough and so yet not complete.

6. Objectives: At any stage during the sales interview the salesman may be confronted by an objection. Prospects will always try to resist sale by raising arguments for not buying the product. Unless the objection is satisfactorily answered, the sale cannot take place. A salesman must always welcome objections. He must consider an objection as an indication of how the prospect's mind is working. A prospect who raises objections is easier to satisfy than a prospect who does not show any interest in the proposition. The clever salesman will always welcome all objections, interprete the objections correctly and will remove it tactfully, without arguing with the customer. He may sometimes even anticipate an objection and forestall it.

*7. **Close:*** The close is the act of actually getting the prospect's assent to buy. It is culmination of the efforts so far made by the salesman, and is, therefore, the climax of the entire sales process A salesman who cannot close the sale cannot in the real sense be called a successful salesman. It is very important for salesman to be alert and find out the right moment at which to close the sale. This is known as the "psychological moment" or the "reaction moment" the salesman's mind and the prospect's are in perfect accord. The salesman must watch for every sign which may indicate that the prospect is willing to buy, and apply the close. He must also remember that the initiative must come from him. He cannot wait for the customer to ask for the product. A sale is never complete until the product is finally in the hands of a satisfied user. Salesman alone can assure such completion of sale.

*8. **The Follow-up (Post-sale contacts):*** Moving the customer to the action stage (the purchase decision) does not complete the salesman's task. He must write the order, arrange for despatch and delivery of the product, facilitate grant of credit, reassure the buyer on the wisdom of his decision, and minimise his dissatisfaction, if any. The salesman should contact the customer frequenly to maintain his goodwill and smoothen over any post-purchase problems. The follow up is a good source of feedback to the salesman.

A sale is made not in the mind of the salesman, nor over the counter, but in the mind of the buyer. Let the buyer decide to purchase not because you want him to do so but because he himself is motivated (set into motion) to buy your product because it is going to solve his problem and satisfy his wants.

Salesman must develop the faculty of empathy *i.e.,* mind or thought reading of the customers. This will provide him accurate information of his (buyer's) motives, feelings, emotions, attitude etc. Buying motives enable the salesman to know why a person buys his products.

A knowledge of various types of customers, their attitudes and/behaviour and ability to recognise and handle the different types of customers is a basic requirement for success in selling.

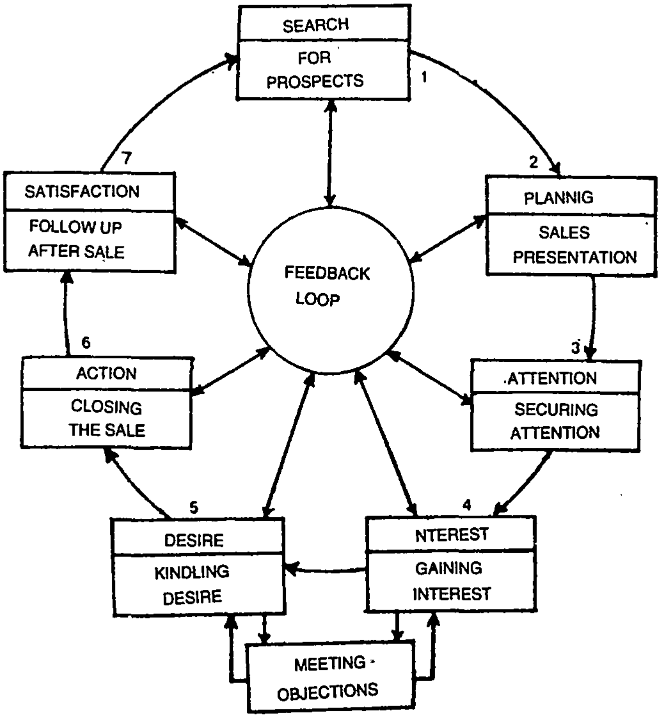


Fig. 8.3 Main Stages in Personal Selling (as Communication) Process

Notes:

1. The first step is to develop a list of prospect — existing and potential customers having need or the product, and authority to purchase.
2. The next step is to create a plan of sales presentation. The plan should be flexible so that necessary modifications can be made, whenever necessary.
3. Third step is to conduct an interview with the prospect. The interview follows AIDAS formula five states through which the buyer passes mentally-Attention, Interest, Desire and Action and satisfaction.
4. Buyer's interest is gained and desire to purchase is kindled by exploring needs of the buyer and his problems and pointed out how the product is related to the buyer's needs and problems.
5. During interest and desire stages, objections are met to buyer's satisfaction.
6. Securing action is the climax of sales presentation.
7. Following up will prevent dissonance — anticlimax of sale.

Theoretical Aspects of Selling

AIDAS Approach: AIDAS theory of selling was a very popular basis for many sales and advertising tests till recently. It is a seller-oriented approach. A successful sales interview takes the prospect through five mental stages, *viz.*, (1) attention, (2) interest, (3) desire, (4) action, and (5) satisfaction of the buyer.

Buying Formula Theory: Buying formula theory of selling is the modern approach. It is buyer-oriented. It gives emphasis on the buyer's needs and buyer's problems to be solved. Salesman is to help the buyer to find solutions to his problems. Problem-solving approach recognizes that a sale is made in the mind of the buyer. The mental process involved in a purchase has four elements:

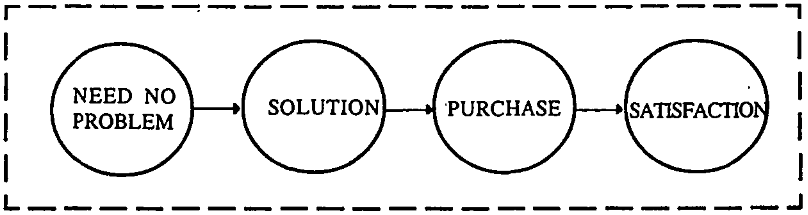


Fig. 8.4 Problem-Solving Approach in Selling

In purchasing, the solution has two parts: (1) Product or service, (2) Brand or Firm's name, *i.e.*, the source of supply. The solution must be adequate and it must create pleasant felling in the buyer's mind. The elaborated diagram (Fig. 8.5) represents the problem-solving approach adopted by a salesperson in the sale interview and the sales presentation.

The product or service and the brand must be considered adequate by the buyer. The buyer must experience a (pleasant) feeling of anticipated satisfaction when thinking of the product or service and the brand. The elements shown by dashed lines *i.e.*, adequacy and pleasant feelings are the elements of defence in the buying habit. As long as they are present, buying will continue as in the past and repeat sale is assured. The salesman is called first to emphasise the need for the product or service. Then he has to indicate that the product is adequate in solving the buyer's problem. If the prospect knows the problem or need and is also aware of the product which can satisfy his need, the salesman will have to emphasise the brand name and convince the buyer that his brand *is the solution to the problem.* If the prospect recognises quite well his need, solution to his problem and also your brand name, the only points to be stressed are conviction and purchase. When a salesman presents a rival brand to a customer, he shall give more emphasis on the adequacy of his brand and the peasant feelings it is capable to create.

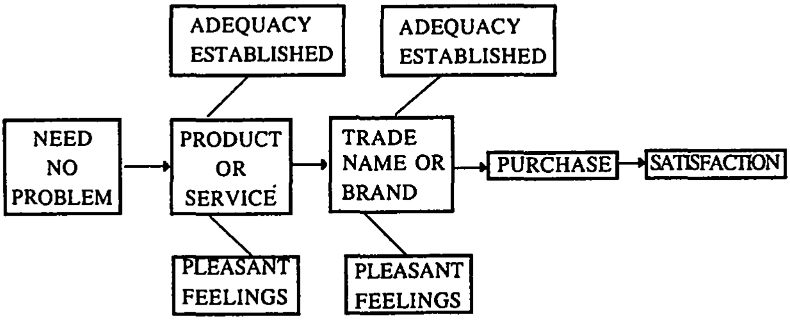


Fig. 8.5 Elaborated Problem-Solving Approach in Selling

Stimulus - Response Model

The learning process represented by- R model has four essential elements: (1) Drives, (2) Cues, (3) Response, (4) Reinforcement.

*1. **Drives:*** Drives are strong internal stimuli that impel the buyer's response. Innate drives are the physiological needs, *e.g.*, hunger, thirst, pain, cold and sex. Learned drives are acquired by persons and they are dominant in economically advanced societies. Drive for status, social approval (praise, recognition) are learned drives.

*2. **Cues:*** Cues are week stimuli as distinguished from the strong stimuli that underline drives. Cues determine when the buyer will respond

(*a*) *Triggering cues* act as activators of the process of purchase decision.

(*b*) *Non-triggering cues* only influence the decision process but they do not activate it. They operate any time even though the buyer is not thinking of a purchase at the moment.

(*c*) *Product clues* are external non-triggering cues or stimuli received from the product directly, e.g., colour and design of the package, weight, price, shape, size, etc.

(*d*) *Informational cues* refer to external stimuli that provide the buyer with information of symbolic nature about the product. Informational cues may come from advertising, sales promotion, conversations with other people, conversation with sales persons, etc.

Specific product and information cues may also act as triggering cues. For instance price, package and service after sale may trigger the purchase decision.

*3. **Response:*** Response is what the buyer does. Positive response means purchase of the product. Negative response means buyer has no intention to purchase.

*4. **Reinforcement:*** It is any event that will strengthen the tendency for a buyer to make a particular response, e.g., repurchase and become habitual purchaser.

Behavioural Equation

$$B = P \times D \times K \times V$$

Where:

B = Response — the purchase of a brand or store patronage.

P = Predisposition or the inward response tendency.

D = Present drive level (amount of motivation).

K = Value of the product to the buyer — potential satisfaction.

V = Intensity of all cues — triggering, informational or product.

Notes:

1. Relation among variables is multiplicative (not additive).
2. If a buyer is not motivated 'D' will be zero and in that case 'B' or response will also be zero. Salesman can influence 'P' (predisposition) directly, through his conversation and sales talk. Use of brand creates the greatest effect on 'P'. Salesman can influence buyer through 'D' (amount of motivation). A buyer can be influenced with informational cues. Buyer's goals can be clarified. When the buyer gives automatic responses — habitual purchases — salesman can provide triggering cues and influence 'D' *i.e.*, amount of motivation. When the buyer has narrowed down the choices to a few sellers, salesman can influence buyer through 'K' (potential satisfaction). Salesman can change the intensity of selling efforts by making difference in 'V' (the intensity of all cues).

POINTS TO REMEMBER

1. **Features of Salesmanship :**
   - *(a)* High pressure salesmanship.
   - *(b)* It is persued for profits.
   - *(c)* It wins buyer confidence.
   - *(d)* It aims at providing service to buyer.
   - *(e)* It aims at mutual benefit.
   - *(f)* It is an education process.
   - *(g)* It is a creative process.
2. **Types of salesmen :**

- *(a)* Industrial salesman.
- *(b)* Merchant salesmen.
- *(c)* Consumer salesmen.

3. **Essentials of effective selling :**
   - *(a)* Knowledge of your company.
   - *(b)* Knowledge of your product.
   - *(c)* Knowledge of competition.
   - *(d)* Knowledge of your customer.
   - *(e)* Knowledge of selling process.
4. **AIDAS Formula :**
   - *(a)* 'A' — Attention.
   - *(b)* 'I' — Interest.
   - *(c)* 'D' — Desire.
   - *(d)* 'A' — Action.
   - *(e)* 'S' — Satisfaction.
5. **Qualities of good salesmen :**
   - *(a)* Presale preparation.
   - *(b)* Prospecting.
   - *(c)* Pre-approach.
   - *(d)* Approach.
   - *(e)* Sales presentation.
   - *(f)* Objective.
   - *(g)* Close
   - *(H)* Follow-up (post sale contacts)

STUDY QUESTIONS

Part - A (16 Marks)

(2 marks question — answer in 4 lines each)

1. What is personal selling?
2. What is salesmanship?
3. What is industrial salesmanship?
4. What is merchant salesmanship?
5. What is consumer salesmanship?
6. Expand A – I – D – A – S.

Part - B (24 Marks)

(8 marks question — answer in 30 lines each)

1. State the features of salesmanship.
2. Is salesmanship an science or profession? Analyse.
3. Briefly analyse the three types of salesmanship.
4. What are the advantage of salesmanship?
5. Distinguish between advertising and salesmanship.
6. What are the essentials of effective selling?
7. Write an analytical note on systems approach to selling process.
8. Briefly analyse the different types of customer.
9. Analyse A – I – D – A – S. Formula.
10. Briefly explain qualities of good salesman.

11. Briefly analyse the different steps of sales process.

Part - C (60 Marks)

(15 marks question — answer 3 pages each)

1. Explain the six basic steps in sales process.
2. Describe the different types of salesmen and point out their role in the channel of distribution.
3. Briefly explain the qualities of a good salesman.
4. Comment on the A – I – D – A – S formula in the sales force.
5. Describe the systems approach applied to personal selling.
6. Discuss the theoretical aspects of selling.

9

DISTRIBUTION

Classification of Distribution (Channels) — Channel of Distribution — Choice of Channel — Market Coverage — Legal Aspects — Marketing Middlemen — Wholesale Trade — Services to the Manufacturer/Producer — Services to Retailers — Managing Distribution (Retailers) — Large-scale Retail Organisation — Points to Remember — Study Questions

(PART - I)

CLASSIFICATION OF DISTRIBUTION (Channels)

Distribution means to distribute, spread out or disseminate. In the field of marketing, channels of distribution indicate routes or pathways through which goods and services flow, or move from producers to consumers.

We can define formally the distribution channel as the set of marketing institutions participating in the marketing activities involved in the movement or the flow of goods or services from the primary producer to the ultimate consumer.

Marketing institutions considered as channel components are: (1) All kinds of merchant middlemen, such as wholesalers and retailers. (2) All kinds of agent middlemen, such as commission agents, factors, brokers, warehouse-keepers and so on, (3) All other facilitating agencies, such common carriers, bankers, advertising agencies, and so on. The route or channel includes both the manufacturer and the ultimate consumer as well as all intermediaries. These components are linked in the channel system by one or more of the marketing flows, such as transfer of title or ownership, physical movement of merchandise, transmission of marketing information and the flow of money in the form of payment of prices and other dues. The channel members right from the producer up to the consumer are interrelated and we have the total distribution system which is responsible for distribution of goods or sellers in order to satisfy consumer needs or desires.

Channels of distribution are best understood as alliances of various marketing institutions performing specific marketing functions. We have the important marketing functions performed by marketing institutions in the machinery of distribution. (1) The searching out of buyers and sellers (contacting), (2) Matching of goods to the requirements of the market (merchandising), (3) Persuading and influencing the prospective buyers to favour a certain product and its sponsor (promotion), (4) Pricing the product or service in such a manner that it is acceptable to the buyers and it can ensure effective distribution, and (5) Transport and warehousing of goods at each stage in the process of distribution (physical distribution). Please note that each of the aforesaid marketing function is expected to facilitate the process of exchange.

Subdivisions of Distribution System

Distribution system has two subdivisions: (1) Channels of distribution, (2) Physical distribution. The channel members such as mercantile agents, wholesalers and retailers are middlemen in distribution and they perform all marketing functions. Such middlemen are specialised in one or a few marketing functions. These middlemen facilitate the process of exchange and create time, place and possession utilities through matching and sorting process, sorting enables meeting or matching the supply with consumer demand.

Physical distribution looks after physical handling of goods, and assures maximum customer service. It aims at offering delivery of right goods at the right time and place to customers. Physical distribution activities cover: (1) Order processing; (2) Handling of goods, (3) Packaging, (4) Warehousing, (5) Transportation, (6) Inventory control, and (7) Customer service. All middlemen in distribution perform these functions, and they assure putting the product within an arm's length of customer desire and demand.

Middlemen in Distribution

There are two types of middlemen in distribution: (1) Merchant middlemen buy and sell goods on their own account and at their own risk of loss, *e.g.*, wholesaler and retailer. (2) Agent middlemen who do not take ownership title to goods but actively negotiate the transfer of ownership right from the seller to the buyer, e.g., selling commission agent or broker.

In the channel management, a manufacturer has to make three decisions: (1) Selection of general channel of distribution to be adopted. (2) Number of middlemen at each level and in each market. (3) Selection of a particular middlemen for selling 'goods' with or without any exclusive rights of distribution.

Channel System

By convention, channel of distribution included only merchant middlemen, agents or brokers. Facilitating agencies such as banks, common carriers, advertising agencies, warehousing companies were excluded from the channel concept as these would not take title to or negotiate the purchase and sale of products.

Under the systems approach the channel is now recognised as a system involving flow of: (1) information, (2) marketing communications (promotion) (3) materials, (4) manpower, (5) capital equipment, and money. It is no longer merely a collection of independent business establishments. It is a system of flows: (1) flow of goods and people, (2) flows of ownership and risk of loss, (3) flow of information, (4) flows of promotion; ordering payment and financing, (5) flow of negotiation and transaction. Ownership, possession and promotion move forward. Ordering and payment move from consumers backward. Risk of loss, negotiating activity and information move forward as well as backward.

CHANNELS OF DISTRIBUTION

The most common routes used for bringing the products in the market from producer to consumer are as follows:

1. Manufacturer — Consumer — Channel (Direct Sale): There are three alternatives in direct sale to consumers: *(a)* Sale through advertising ind direct methods (mail order selling), *(b)* Sale through travelling salesforce (house to house canvassing), *(c)* Sale through retail shops of manufacturer, *e.g.*, mills cloth shops, Bata Shoe company Shops.

Fig. 9.1 Direct Marketing

Today "Direct marketing" has become a big activity in consumer products. A published data reveals that 78 billion dollars (Rs.

33575 crores) turnover takes place in direct marketing. But still direct marketing (selling goods and services directly to the consumer) covers less than one per cent of the overall retail market. There is substantial scope for the growth of direct marketing. Amway company of Canada has made big strides in direct selling all over the world.

Features

— Direct contact of consumers by producers.

— Saving consumer's time and effort in getting better product information.

— Contact potential buyers, establish the company's name and products, get sales volume in a relatively short period of time.

— Person-to-person sales.

— Convenience of purchasing at buyer's home or work place.

— Demonstrating the product at the doors of the customers.

— No onslaughts of intermediaries.

— Reduces distribution cost.

— Minimises promotion cost.

— Division of labour between the producer and sales person.

— Fast customer development.

Sales Methods in Direct Marketing

— Door-to-Door Selling
Company agent or company contractor contacts potential customers within a specified area, offers and demonstrates products, and sells the product with after sale service.

— The company contractor or agent of the company, identifies a person who invites a group of people in that area to a sales party at the house of identified person. Sales takes place and the person who hosts the party will be gifted based on the sales taken place in the party.

Network Marketing

This is also called Multi-Level Marketing (MLM). This method involves multi-tiered sales force. This sales force is independent in action. There may be individual sellers or a group of sellers. These sellers get commission on sales. However, they are allowed to fix price within MRP (Maximum Retail Price). Net work marketing is a concept which develops markets for products by WORD OF MOUTH. There is no media advertising. Only consumers advertise the product by mouth. NM provides opportunity for individuals to build a marketing organisation of sales people, generating more sales volume, more income to manufacturer and creating strong customer base.

Telemarketing, Teleshopping through televisions, kiosk marketing are other forms of direct selling.

Kiosk is a method in which marketing companies devise "customer-orders placing machines" and place them in important places like big bazars, airports, busy places etc., consumer can place orders through these machines and products will be delivered to customer's house.

In India direct marketing is a new concept. This has been in practice for the past three decades. It is providing a unique opportunity — the chance to own and operate a business with the freedom to set flexible schedules while achieving personal and career goals. There are many factors which contribute for bright future for direct selling in India. They are:

- Entrepreneurial spirit is available in plenty. Entrepreneurial spirit is the life-blood of direct selling. It is a fundamental strength of India's work force.
- Indian government is encouraging small entrepreneurs and has helped to shape a market where entrepreneurship through direct selling can flourish. Liberalisation of trade, market reforms, active participation in World Trade Organisation (WTO), focus on improving critical infrastructure, good economic development of the country, are very favourable for the growth of direct marketing.
- Multinational Companies (MNCs) like Amway are encouraging local entrepreneurs by offering part or full time business opportunities. They are getting all their product and service requirements from local, small and medium enterprises. Technology transfer is also taking place.

Evils of Direct Channel

The public understanding of direct marketing in India is something different. People have misconceptions about direct marketing. The perception of Indian people about direct marketing is that "it is a door-to-door selling activities with intrusions by strangers who may sell poor quality products and show no interest in providing any follow-up service. Companies employing these kinds of sales methods are often agencies moving surplus or promotional products, or manufacturers unable to compete in the retail environment." This misunderstanding of "Direct Sales" is detrimental to the growth of direct channels of distribution. The true nature of direct marketing has to still develop in India. Companies really involved in direct selling are taking steps to follow company and industry standards of ethics and laws.

The Code of Conduct for Direct Selling published by World Federation of Direct Selling Association in 1994 is followed by Indian Direct Selling Association in toto and has appointed Code Administrator to look after customer grievances in 1997.

Although the direct marketing is very good for entrepreneurs seeking new opportunities, flexible working hours, low "barriers to entry" in terms of cost, difficulty and overheads, without prejudice of gender, age, education, handicap, etc., the PRICE for the products sold by direct selling will be bit high. This may be a mental block for the growth of direct marketing. But still the products and services marketed through this channel have unique features and are not available in retail outlets. The consumer products are exclusive in direct marketing.

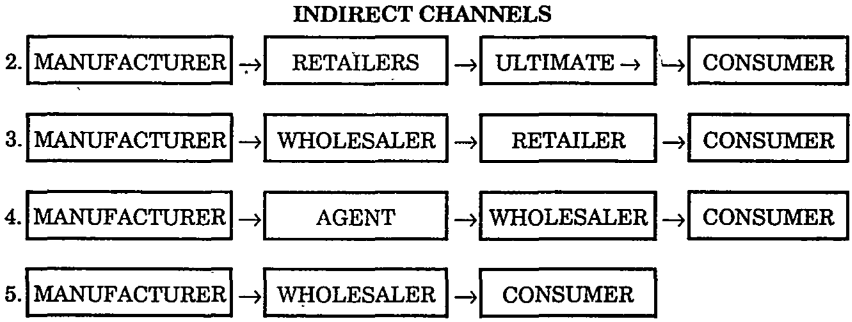


Fig. 9.2 Different Indirect Channels

2. Manufacturer — Retailer — Ultimate Consumer: This channel option is preferable when buyers are large retailers, *e.g.*, a department store, discount house, chain stores, supermarket, big mail-order house or co-operative stores. The wholesaler can be by-passed in this trade route. It is also suitable when products are perishable and speed in distribution is essential. Automobiles, appliances, men's and women's clothing, shoes are sold directly to retailers. However, the manufacturer has to perform functions of a wholesaler such as storage, insurance, financing of inventories, and transport.

3. Manufacturer — Wholesaler — Retailer — Consumer: This is a normal, regular and popular channel option used in groceries, drugs, drug goods, etc. It is suitable for a producer under the given conditions: *(a)* He has a narrow product line. *(b)* He has limited finance. *(c)* Wholesalers are specialised and can provide strong promotional support. *(d)* Products are durable and not subject to physical deterioration or fashion changes.

The best means of transport and communication, growth of big retailers, computer handling of small innumerable orders of retailers, advances in automatic data processing, information explosion, *etc.*, may reduce the need and importance of wholesalers in future.

4. Manufacturer — Agent — Wholesaler — Retailer — Consumer: In this channel the producer uses the service or an agent middlemen such as sales agent, for the initial dispersion of goods. The agent in turn may distribute to wholesalers, who in turn sell to retailers. Many textile mills have sales agents for distribution. We may have a large national distributor such as Voltas, acting as sole sales agent for many manufacturers. Agent middlemen generally operate at the wholesaler level, they are common in agricultural marketing.

In marketing manufactured goods, agent middlemen are used by manufacturers to make themselves free from marketing tasks. An agent middlemen sells on commission basis directly to wholesaler or large retailer.

5. Manufacturer — Wholesalers — Consumer / User: Wholesaler may bypass retailer when there are large and institutional buyers, *e.g.*, industrial buyers, government:, consumer cooperatives, hospitals, educational institutions, business houses, etc.

CHOICE OF CHANNEL

The problem of selecting the most suitable channel of distribution for a product is complex. The most fundamental factor for channel choice and channel management is economic criteria, viz., cost and profit criteria. Profit organisations are primarily interested in cost minimisation in distribution and assurance of reasonable profit margin. However, channel decisions are not made entirely on the basis of rational economic analysis. We have to consider a number of factors such as the nature of the product, market trends, competition outlook, pricing policies, typical consumer needs, as well as needs of the manufacturer himself.'The following are other critical factors.

1. Product: *(a)* If a commodity is perishable or fragile, a producer prefers few and controlled levels of distribution. For perishable goods speedy movement needs shorter channel or route of distribution. *(b)* For durable and standardised goods longer and diversified channel may be necessary. *(c)* For custom made product direct distribution to consumer or industrial user may be desirable. *(d)* Systems approach needs package deal and shorter-channel serves the purpose. *(e)* For technical product requiring specialised selling and serving talents, we have the shortest channel. *(f)* products of high unit value are sold directly by travelling salesforce and not through middlemen.

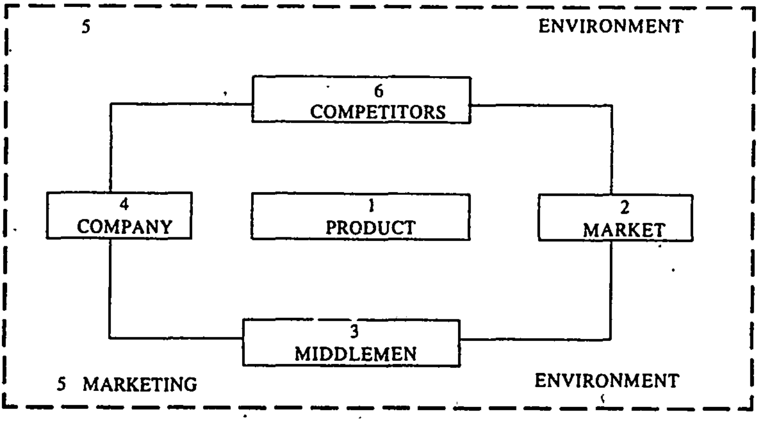


Fig. 9.3 Determinants of Channel Choice

2. *Market:* *(a)* For consumer market, retailer is essential, whereas in industrial market we can eliminate the retailer. *(b)* If the market size is large, we have many channels, whereas in a small market direct selling may be profitable. *(c)* For highly concentrated markets, direct selling is enough but for widely scattered and diffused markets, we must have many channels. *(d)* Size and average frequency of customer's orders also influence the channel decision. In the sale of food products, we need both wholesaler and retailer.

Market means people with money and willingness to purchase want-satisfying goods. Age, income group, sex, vocation, religion of customer will have to be studied to secure adequate information of market segments or target markets. Buying habits of customers and dealers will also influence our channel choice. Consumer and dealer analysis will give us data on the number, type, location, buying habits of consumers and dealers. Channel choice needs this information. For example, desire for credit, preference for one-stop shopping, demand for personal services, amount of time and effort the customer is willing to spend are all important factors in channel choice.

If ultimate buyers are numerous, the order is small, order frequency is great and buyers insist on the right to choose from a wide variety of brands/goods, we must have three or even more levels of distribution. Market considerations also govern mass distribution (through multiple channels) or selective/exclusive distribution through few or even one dealer. When service after sale is required, *e.g.*, TV sets, refrigerators, *etc.*, selective distribution is profitable.

3. ***Middlemen:*** *(a)* Middlemen who can provide wanted marketing services will be given first preference. Of course, they must be available. *(b)* The selected middlemen must offer maximum co-operation particularly in promotional services. They must accept marketing policies and programmes of the manufacturers and actively help them in their implementation. *(c)* The channel generating the largest sales volume at lower unit cost will be given top priority. This will minimise distribution cost.

4. ***Company:*** *(a)* The company's size determines the size of the market, the size of its larger accounts and its ability to get middlemen's co-operation. A big firm may have shorter channel. *(b)* The company's product mix influences the pattern of channels. The broader the product line, the shorter will be the channel. If the product mix has greater depth or specialisation, the company can favour selective or exclusive dealerships. *(c)* A company with substantial financial resources need not rely too much on the middlemen and can afford to reduce the levels of distribution. A weaker company has to depend on middlemen to secure financial and warehousing reliefs. *(d)* New companies rely heavily on middlemen due to lack of experience and ability of management. *(e)* A company desiring to exercise greater control over channel will prefer shorter channel as it will facilitate better co-ordination, communication and control. *(f)* Heavy advertising and sale promotion can motivate middlemen to handle displays and join enthusiastically in the promotion campaign and co-operative publicity. In such cases even a longer chain of distribution can be profitable. Thus, quantity and quality of marketing services provided by the company can influence the channel choice directly.

5. ***Marketing Environment:*** Marketing environment can also influence the channel decision. During recession or depression, shorter and cheaper channel alternatives. Technological inventions also have impact on distribution. The distribution of perishable goods even in distant markets become a reality due to cold storage facilities in transport and warehousing. Hence, this led to expanded role of intermediaries in the distribution of perishable goods.

6. *Competitors:* Marketers closely watch the channels used by rivals. Many a time, similar channels may be desirable to bring about distribution of your products also. However, sometimes marketers deliberately avoid customary channels (dominated by rivals) and adopt different channel strategy. For instance, you may by-pass retail store channel (usually used by rivals) and adopt door-to-door sales (where there is no competition).

Channel Decision

The first problem of channel design is whether you want direct sale to consumer or indirect sale i.e., sale through middlemen. Under the direct sale the channel problems become problems in company operation as most of the system's components are parts of the company organisation. If the firm chooses the indirect route, it must consider such problems as the type and number of middlemen and the methods to be employed in motivating and controlling them. The selection of these middlemen begins with the knowledge of ultimate customer—his needs and desires for distribution services. The number of middlemen employed will be determined by customer conveniences and economies of selective or exclusive distribution or combination of all the three types. The decision is made after a careful analysis of product, consumers, dealers, company objectives and policies, and the conflict within the competition and many other relevant factors. The company must resolve channels problems and bring the product profitably to the market.

Designing A Right Channel

Though the different strategies are adopted to promote a product, a right channel has to be designed by adopting the following procedure :

- Set the channel objectives *i.e.*, what has to be achieved by setting objectives. It may be the best coverage of the target market, consumer convenience in purchasing, making the distribution cost effective, reducing the burden of distribution efforts of dealers etc.
- Recognising channel functions. The channel functions have to be identified keeping in view the channel objectives. Functions like price negotiation, financing, merchandising, salesmanship, providing consumer information, etc. have to be recognised and adopted as per business requirements.
- Detailing product profile is another activity in channel design. Each product requires separate channel. Industrial goods may require short channel and a low value consumer

goods may require longer channels. Therefore product feature has to be analysed.

- Distribution environment has to be analysed. By distribution environment here we mean the composition of distributors and their operations in the channel. If large number of distributors are operating in the channel, they should be encouraged to work with full vigour. In such a case direct channel will be useless.
- Analysing channels adopted by competitors and adopt it, if need be. Normally every firm adopts the channel followed by competitors. Separate channels may be experimented. But it may prove expensive and hamper the growth of the turnover. Therefore it is safe to adopt the channel tested by competitors.
- Analysing resource position. Whether a firm should resort to direct or indirect channel depends upon its resources and infrastructure it commands. If it is having solid resources, it can adopt direct channel. Otherwise it can resort to long or indirect channel.
- Developing channel options. After considering all the aspects discussed earlier, the firm shall develop a number of alternative channels according to priority.
- After developing the alternative one or the combinations of two to three channels may be adopted suiting to the needs of the firm.

Channel Modification

Channel alternation is a continuous activity. It is not enough, if the channel is once fixed. Due to change in marketing strategies, channel is subjected to modification and basic shifting from direct to indirect and vice-versa. Therefore channel modification is a continuous activity. The reasons for channel modification are as follows:

- Change in taste, fashion and preference of consumers.
- Malpractice by channel operators like, wholesalers, retailers etc.
- Ineffectiveness of the existing channel.
- Channel modification by competitors.
- Complaints by consumers against the existing channels.
- Business expansion need channel improvement.
- Pressure from middlemen to modify channel.
- Impact of agressive promotion activity may expand the market and hence change the length of channel from shorter to longer ones.

- Change in economic conditions in the country or in the market resort in channel modification.
- Change in technology may lead to channel modification, For e.g. Development of communication at a faster rate and introduction of T.V. has brought about tele-shopping. In this case direct marketing may prove good. Hence channel modification from longer to shorter ones.
- Change in the objective of channel may also modify the channel.

The channel modification activity takes place in the following forms :

- Increasing the members in channel operations i.e., increasing the dealer network.
- Reducing dealer network.
- Need to stretch or reduce or introduce new channel in a particular market segment.
- Suspending existing channels due to adoptation of new marketing strategies.
- Changing the channel objective totally and adopting new channel.

MARKET COVERAGE

Once, the company decides the general channels to be used, it has to decide on the number of middlemen in each channel, *i.e.*, intensity of distribution. There are three alternatives.

1. Extensive Distribution: We have maximum of retail outlets for mass distribution of convenience goods as consumers demand immediate satisfaction and that too at the most convenient retail shops. Extensive or broadcast distribution is essential when the price is low, buying is frequent and brand switching is a common phenomenon. Extensive distribution secures rising sales volume, wider consumer recognition and considerable impulse purchasing. But it creates problem of motivation and control and it may generate unprofitable sales due to higher marketing costs.

2. Selective or Limited Distribution: When special services are needed, *e.g.*, TV sets or a right prestige image is to be created, *e.g.*, certain cosmetics to be sold only through chemists, we have selective distribution. The number of outlets at each level of distribution is limited in a given geographic area. When we have limited number of middlemen, they can spend more on sales promotion and offer has long useful life and consumer brand preference can be established, selective distribution will be more profitable.

3. Exclusive Distribution: When final buyers do not need any product service, mass or extensive distribution is adopted. If the amount of product service expected by final buyers is considerable, exclusive distribution is preferable. Here, we have one wholesaler or one retailer for a given market to handle the right of distribution in that market. Similarly, if your brand has not only brand preference but also brand insistence and consumers refuse to accept substitutes, selective or even exclusive distribution is feasible. Exclusive distribution creates a sole agency or sole distributionship in a given market area. Such types of distribution are very useful in the sale of consumer speciality goods. *e.g.*, expensive men's suits. Exclusive distribution privileges offer tremendous loyalty of dealers and substantial sales support from dealers. However, the main sacrifice involved is the rising sales volume that might be obtained through wider markets and he can get maximum co-operation from middlemen. Exclusive dealer can carry complete stock and offer after sale-service to the buyers of products.

Legal Aspects

There are three major aspects of exclusive distribution:

1. Exclusive Dealing Contracts: They prohibit the dealer from selling products of rivals.

2. Tying Contracts: They compel the dealer to carry full line of a manufacturer.

3. Closed Sales Territory: It limits each dealer to sell only to buyers located within the assigned area.

An exclusive dealing contract is not illegal in all situations. It is not allowed to a monopolist. For a new and small manufacturer, it is permitted. If there is no compulsory limitation on competitive products, exclusive dealing is legal.

Tying contracts are legal as long as the dealer is not prohibited from selling competitive goods. However, this agreement cannot be made compulsory. Closed sales territories may be illegal because it is an agreement restricting the right of the dealer. It may tend to create monopoly.

4. Franchise Selling: Franchise means a privilege or exceptional right granted to a person. Franchise selling is a term to describe in effect selective or exclusive distribution policies. Franchise selling is any contract under which independent retailers or wholesalers are organised to act in close co-operation with each other or with manufacturers to distribute given products or services. Franchise selling is a system under which a manufacturer grants to certain dealers the right to sell his product or service, in generally defined areas, in exchange for a promise to promote and sell the product in a specific manner. The franchiser provides equipment, the products or services for sale, and also managerial services to franchisee.

Under this system, the owner of the product issues a licence to independent dealers in certain areas and encourages them to make profit for themselves. The owner retrains control over the technique or style with which the goods or services are sold.

The soft-drink manufacturer, *e.g.*, Coca Cola company licensed bottles (wholesalers) in various markets who used to buy its concentrate and then carbonate, bottle and sell it to retailers in local markets. By 1974 there were 22 bottling plants franchised to Coca Cola Company in India. The concentrates were manufactured locally. This American enterprise was required to wind up its business in India as it declined to abide by the new regulations under Foreign Exchange Regulation Act, 1974.

MARKETING MIDDLEMEN

Middlemen in Distribution

In all commodity markets, whether primary or central, we have a host of middlemen acting as essential functionaries.

1. ***Brokers:*** Broker is an agent who does not have direct physical possession of goods in which he deals but he represents

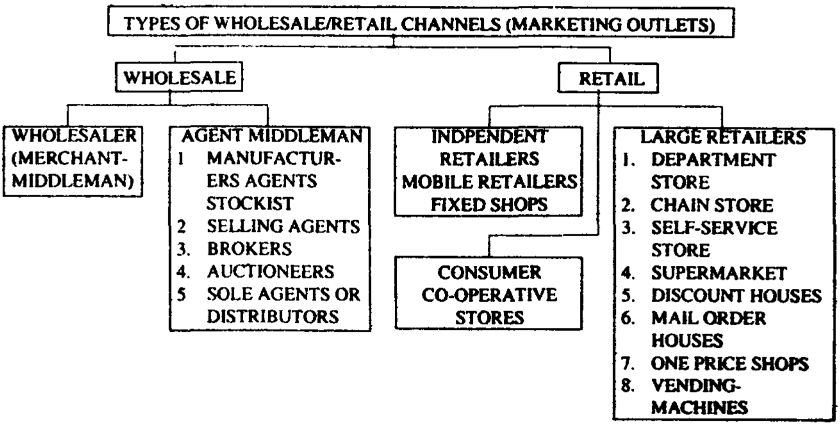


Fig. 9.4 Marketing Middlemen

either the buyer or the seller in negotiating purchases or sales for his principals. They may be organised as individuals, partnership or even companies. They act as agents for their clients — producers, dealers, manufacturers, *etc.*, the produce brokers offer services of expert middlemen between sellers and buyers. Brokers are experts in grades, qualities, trade terms and contract terms as well as in warehousing and transport problems. They buy and sell specific quantities of specific grades of a commodity on behalf of their masters or employers who undertake all market, credit, transport and other risks.

In the primary markets, they do business on account of their customers not only in spot goods, ready for immediate delivery, but they also make sales at negotiated prices for forward delivery of specific grades and of definite quantities.

2. Commission Agents: In each primary and central market, individuals, firms or even companies are organised to buy or sell commodities, acting as buying or selling agents of producers, dealers or manufacturers who convert the commodities into consumer goods. They may buy or sell on their own account and at their own risk of loss. In that case, they are called commission merchants or factors. They may receive goods for sale on consignment acting as consignees of their employers. They are important in agricultural markets the consignment method is used by manufacturers who wish to maintain resale prices of their goods. They may also act as sole agents of their employers. Resident buyers or buying agents are important in central markets for purchase on behalf of distant buyers.

Selling agents sell the entire output of their principals or all of given lines of goods. They also often have full authority to finalise prices, terms and other conditions of sale. We have also manufacturer's agents to sell goods of a number of non-competing producers or manufacturers. They are appointed on a continuing agency basis. They often sell within an exclusive area. But they possess limited authority with regard to prices and terms of sale. All commission agents work for a fee or commission, *e.g.*, 3% to 5% of sales or purchase.

3. Dealers: In all primary and central commodity markets, we invariably have merchant dealers. They are great risk-bearers in the physical or spot markets. They are the backbone of our markets. These dealers act as principals, buying and selling commodities on their own account and at their own risk merely for a chance of profit. By selling to them, all producers can be free from risk of loss. They also act as warehousekeepers of the market and to that extent manufacturers are also free from risk of loss to a certain extent. The development of the dealer being the middleman between the producer and the manufacturer, and between the manufacturer and the ultimate consumers — permitted the producers and converters to transfer some of.their market risks to the dealer. The commodity dealer voluntarily absorbs.both market and credit risks in the expectation of making profits. There is no assurance of profits.

Sole Selling Agency

An established firm of good reputation operating in each area may be appointed as a sole agent or distributor exclusively for that locality. The sales manager will have at his disposal the standing sales organisation of the selling agent for distribution of his goods in that area. He may be able to arrange for his goods to be advertised, packed, warehoused, sold and delivered by the selling agents in each important market.

The sales manager must make sure that the agency is sound, honest and its is a practical proposition based on mutual permanent benefit. When the agent is assured of benefits, he will work hard and with enthusiasm. In return he is bound to devote particular attention to the agency and discharge faithfully his regular duties arising out of the seller's sales campaign.

There should be a regular legal agency agreement covering the mutual rights and obligations of both parties and all questions likely to arise during the agency. The minimum period of an agency should be normally three to five years, with a three months' notice period on either side for agency termination.

Usually, sales agencies involve exclusive selling rights for a territory. This will prevent competition among agents. Of course, the sole agents must know the area well and must be able to handle the given area effectively. The sole agent is given a special commission.

Consignment Sale

The stock may be bought by the agent outright on the understanding that he may return for credit the stock unsold. But usually, the stock is held *on consignment* by the agent and the property remains with the seller until it is sold. The agency agreement will mention the maximum amount of stock to be held by the agent at a time. Within the prescribed limit, the agent is free to select his stock.

Under a consignment sale, the goods are consigned to the selling agent called the consignee on a sale or return basis. When the goods are sold, the agent prepares *'Account Sale'* and forwards it to the seller. The selling expenses and commission are deducted from the total sale proceeds and the net amount due is remitted by cheque along with the Account Sale. Usually, the selling agent also acts as *del credere* agent in which case he assumes full responsibility for bad debts against special *del credere* commission.

Sole agents or sole distributors are given reasonable areas for exclusive selling rights. The seller cannot put too much of his business in the hands of one a gent. If a large output is sold through one agent only, the goods of the seller may become identified with the agent to such an extent that a change of agent would be difficult in practice without loss of business and prestige.

The manufacturer should not rely upon his agent for demand creation. He must conduct a general advertising campaign with or without the agent's co-operation. In trade exhibitions, the seller must himself participate and should not compel his agents to do so.

Exclusive dealing agreements are illegal if the supplier has a substantial share of the market. If the seller has only substantial market power an exclusive dealer may be substantially protected from competition in his area. In the U.S.A., as little as 8 percent to 10 per cent of the market power may be regarded as substantial. However, in India, exclusive dealership or distributorship is regarded as a restrictive trade practice, subject to approval under the M.R.T.P. Act, 1969.

Evaluation of Marketing Intermediaries

Marketing intermediaries survive and prosper only as long as they perform one or more of these essential marketing functions at costs which are competitive with other intermediaries and at levels matched to market demands.

It should be clearly understood that marketing functions or services can be shifted and shared, but they can never be eliminated. Even if a producer takes goods directly to the user, the channel functions cannot be eliminated. The producer under direct sale must perform all marketing functions such as buying, selling, stocking, pricing, promoting, displaying, delivering, financing, and so on. The direct sale may reduce the number of times or the frequency of the functions performed. But it cannot eliminate those typical marketing functions. Besides, the direct route may or may not reduce the cost. Under such circumstances, where is the utility of eliminating middlemen in distribution? On the other hand, it is preferable to utilise middlemen who specialise in those marketing services and who offer the benefits of specialisation at reasonable cost. Wholesalers and retailers, by practising specialisation and division of labour, reduce their operating expense ratios. They can operate on relatively small profit margin. It has been proved that net profit percentage for wholesaling and retailing operation in 1978 (in the U.S.A.) did not exceed 3 per cent of sales. They did not get an overall return of investment more than 15 per cent per year. Even an investor on tax-free securities can earn upto 9 per cent anywhere in the world. Marketing intermediaries undergoing considerable risks may earn hardly a few percentage points more as a result of their operations.

In the case of consumer goods, bulk of merchandise even in advanced countries moves through wholesaling and retailing organisations. Hence, wholesalers and retailers are two most important marketing intermediaries. They have carved out a definite niche in our distribution system by the efficient performance of marketing functions.

How Indispensable are Middlemen?

The searching out of buyers and sellers, the matching of goods to the market requirements, pricing to facilitate profitable productions and marketing, marketing communications and physical distribution are the typical marketing functions. They need deployment of scarce resources and preferably specialisation. Middlemen offer both the requirements. They are prepared to provide finance and they can offer these marketing services much better due to specialisation in one or a few marketing functions. A marketer is primarily interested in relative efficiency and effectiveness. He can gain by transferring some of the channel functions to specialist middlemen like wholesalers and retailers, provided he can achieve economies through their scale of operations and their specialised knowledge. Middlemen serve as expert purchasing agents for their customers, and expert sales specialists for their suppliers. Many a time, they offer financial help to their suppliers and their customers. They also act as risk-bearers. They look after storage and transport. They are the clearing house of information. Hence, they are essential in the machinery of distribution.

WHOLESALE TRADE

Wholesalers

Wholesalers are individuals or business firms who will sell products to be used primarily for resale or for industrial use. The wholesaler is a bulk purchaser with the object of resale to retailers or other traders after breaking down his 'bulk' in smaller quantities and, if necessary, repacking the smaller lots into lots suitable for his customer, *viz.*, retailers.

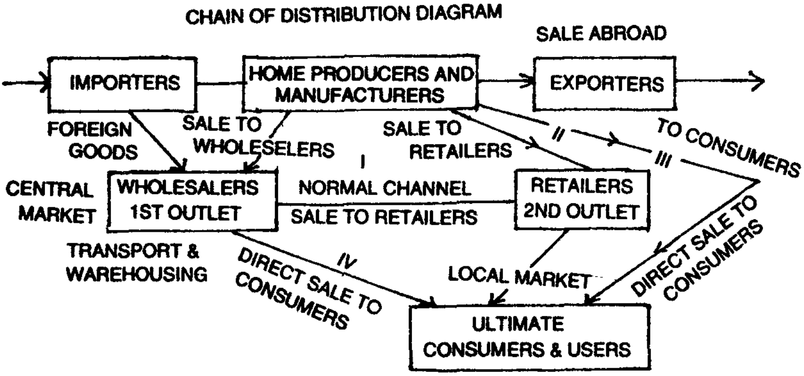


Fig. 9.5 Chain of Distribution Diagram

Wholesale Vs. Retail Trade

Wholesalers operate on a large scale in the central market and act as the first outlet in distribution, usually specialising in one or a group of allied articles. Retailers operate on a small-scale and in the local markets, selling directly to the consumers a wide variety of goods to satisfy numerous and changing wants of customers.

Wholesale business needs large capital, wholesale prices and margins are relatively lower, and the business can be carried on with or without a showroom. Retail business requires limited capital, the prices and margins are relative higher and the business requires a shop with or without display.

Typical Wholesale Services

A middlemen in distribution is a specialist in concentration, equalisation and dispersion. Wholesalers specialise in these three vital functions in the process of marketing. Wholesalers offer typical services as middlemen between process of marketing. Wholesalers offer typical services as middlemen between producers and retailers in the central market: (1) Maintenance of salesforce, (2) Storage (3) Delivery to retailers, (4) Financial help to both manufacturer and retailer, (5) Merchandising *i.e.*, preparations for sale (packing, grading, branding etc.) (6) Sales promotional work, (7) Product servicing, (8) Marketing information and (9) Risk bearing.

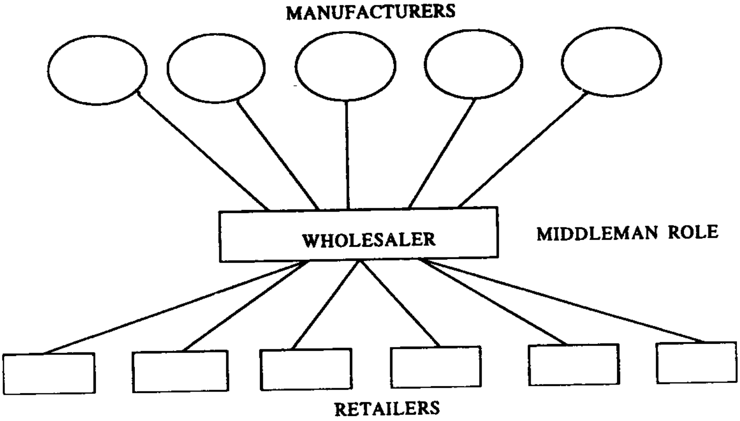


Fig. 9.6 Marketing through Merchant Wholesalers

SERVICES TO THE MANUFACTURER OR PRODUCER

1. ***Order Collector:*** Retailers are usually scattered, their orders are small and they are too many in number. The wholesaler acts as order collecting and marketing agency for the manufacturer. The manufacturer can, therefore, concentrate on production and need not worry about distribution.

2. ***Risk Transfer:*** A wholesaler usually places huge advance orders on the manufacturer. Thus, the manufacturer is insured for sale or disposal. He need not carry large stocks and can concentrate fully on manufacturing goods as per order of the wholesaler. The manufacturer is, therefore, free from bearing of risk of loss.

3. ***Concrete Relief:*** The wholesaler's organisation can be used by the manufacturer for disposal of his goods. The manufacturer need not maintain huge sales organisation for collection of numerous orders and dispatching many small parcels of goods to scattered retailers. The manufacturer need not grant credit to retailers. Wholesalers do not demand credit from the manufacturer and sometimes they make advance payment to small manufacturers. Thus, the manufacturer enjoys financial relief and employs his capital for more productive purposes, *viz.*, expansion of his manufacturing activities.

4. ***Expert Advice:*** The wholesaler knows the pulse of the market. He can secure first-hand information of consumer's wants through the retailer's order. The wholesaler's order on the manufacturer can act as an indicator of trend of demand or of public taste, the manufacturer can regulate his production activity in the light of this trend and can bring about necessary modifications in his product so that it will give the desired satisfaction to the consumer.

Note:

> The wholesaler's services to retailers and to producers as middlemen are: (1) buying, (2) selling, (3) bulk breaking, (4) transport, (5) storage, (6) finance, (7) risk-bearing, (8) market information, and (9) managerial advice and services to retailers as well as producers.

SERVICES TO THE RETAILERS

1. No Need to Hold Large Stocks of Varied Goods: A retailer has to maintain adequate stocks of varied commodities especially if his turnover is not quick and has relatively large number of customers. He encounters two difficulties in holding large stocks of each type of commodity. One is dearth of capital and the other is lack of space. Hence, he cannot maintain adequate stocks of varied articles. Under such circumstances, the wholesaler's warehouse acts as reservoir or a constant source for retailers' definite assurance to replenish or refill his stocks at frequent intervals. The retailer gets considerable financial relief and need not lock up his capital. He can carry on his business with less amount of capital.

2. Prompt Delivery of Goods: In the absence of the wholesaler, the retailer may have to wait for a long time for the execution of his order or he may have to place advance orders on the manufacturer. When the wholesaler is present, supplies to the retailer will be available more quickly as the goods are in his warehouse almost ready for delivery. Thus, the retailer gets prompt delivery of goods.

3. Benefits of Specialisation: The wholesaler performs marketing functions for the retailer also. A retailer will buy from the best wholesaler who in turn will secure supplies from the best manufacturer. Some of the advantages of specialisation can be passed on to the retailers. A retailer carries varied stocks, therefore, he cannot claim expert knowledge of market conditions for each article. The wholesaler specialises in one line of goods and knows the pulse of the market. Therefore, he can advice the retailer when to buy, how much to buy at a time. He can also guide him regarding the quality of the product.

4. Announcement of New Products: The wholesaler informs the retailer about the arrival of new goods. The new products may be advertised by the manufacturer. They may be kept in the showroom and his travelling salesman may create demand through personal salesmanship. The wholesaler may help the retailer in efficient window display of the new products in his shop.

5. *Grant of Credit:* Wholesalers grant credit to their permanent customers. Average size of he retailer's order is large and the order may be placed on different departments of the wholesaler's organisation. Secondly, the retailer makes frequent purchase and cash settlement for each purchase may lead to inconveniences and waste of time. Hence, the wholesaler usually grants monthly or quarterly credit and sends periodical statements of account to the retailers who are granted credit facilities. Such financial help increases in effect the working capital of the retailer. However, he has to forego cash discount when he accepts credit from the wholesaler.

The wholesaler may grant credit to those retailers whose sales turnover is slow, whose transactions.are on credit and who are required to maintain large stocks at a time. Quick sales turnover, and cash sales do not require large stocking of goods. Hence, the wholesaler may not grant credit to such retailers.

Wholesale Organisation

The amount of capital required for wholesale business is usually greater than that required for the retail business.

The wholesaler has to carry huge stocks for each traded commodity. He has to maintain big and up-to-date warehouses with cold storage facilities, if necessary, for the preservation of quality, and a big showroom for the demonstration of goods. Trained travelling salesmen are needed for the various territories to canvass and book orders from the retailers. He may have to maintain a fleet of motor vans for prompt delivery to his customer. He has to place advance orders with even advance payments to the manufacturers. He has also to offer extensive credit to the retailers. Hence, wholesale trade is usually carried on by a limited company, and managed by a board of directors. The board formulates policy, reviews trends in business and determines major modifications in the conduct of the business. Day-to-day affairs are controlled by the managing director with the help to expert departmental managers. Wholesale organisation may be represented in the above chart.

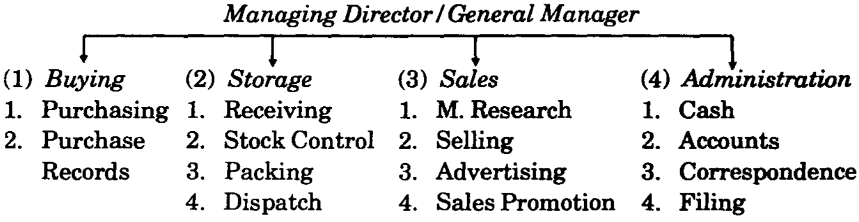


Fig. 9.7 Wholesale Organisation

Is Wholesaler Essential?

Position of the Retailer in the Absence of the Wholesaler: We may realise the indispensability of a person much more when he is absent rather than when he is present and serving us in different ways. This-is true in the case of the wholesaler, who is acting as a connecting link between the manufacturer and the retailer. In the absence of wholesaler, the retailer will suffer from the following inconveniences: (1) He will have to hold large stocks of varied articles, and for this he must have adequate space and ample capital. (2) He will have to assemble stocks from different manufacturers. (3) He will have to arrange for their carriage, packing, warehousing, etc. (4) He will have to bear the risk of fluctuations in prices, changes in public taste and demand. Very few retailers are capable of bearing such risks of loss.

Goods are supplied for distribution within the country by manufacturers, producers and importers. The suppliers of goods may employ any one of the following channels of distribution:

(1) Sale to wholesalers, (2) Sale to wholesale selling agents who may be appointed as sole agents or who may work simply as commission agents. (3) Direct sale to the retailers employing travelling salesmen or establishing contact with department stores. (4) Direct sale to consumers through : *(a)* house-to-house canvassing, *(b)* mail order selling, *(c)* multiple shop system, (5) Sale to cooperative wholesale society.

Recently consumers' wholesale co-operative societies in many countries have established direct relations with the manufacturers and producers. Growth of departmental stores, multiple shop system and co-operative stores have brought about tendencies towards the elimination of the wholesaler from the normal channel of distribution. The multiple shop system and co-operative organisations are tying to eliminate all middlemen between the producer and the consumer. Any party, desiring to eliminate middlemen in the machinery of distribution, can secure independence and saving of middlemen's profit. The shorter the chain of middlemen, the smaller will be the gap between the producer's price and consumer's price. However, elimination of middlemen does not mean elimination of his functions and service. There is an old and popular concept in marketing that "you can eliminate the middlemen but you cannot eliminate their functions or activities." We may eliminate the wholesaler but not his functions. The manufacturer or the retailer will have to perform his functions and services. In the absence of the wholesaler neither the manufacture nor the retailer can exclusively concentrate his attention on the manufacturing or retailing side respectively. The party trying to avoid the wholesaler will have to devote some time and energy in looking after specialised function of the wholesaler. There are two important disadvantages of the elimination of wholesaler.

1. The wholesaler specialises in wholesale trade. There will be a loss of his expert services which he renders to the manufacturers or retailers.

2. Risk-bearing due to change in the prices or change in the demand is impossible for small retailers. Majority of the retailers are small traders.

When we cannot eliminate functions and services of the wholesaler, there is no sense in eliminating a specialist who specializes in these functions. These are the days of specialisation and the wholesaler is an important specialist in home trade. He has a definite position in the machinery of commerce. To the small retailer, small manufacturers and producers of perishable goods and export goods, the wholesaler seems to be essential. In the light of his services to the manufacturer and retailer and in the light of the position of the retailer in the absence of the wholesaler, we can conclude that the wholesaler is necessary and cannot be eliminated.

(PART - II)
MANAGING DISTRIBUTION CHANNELS
(Retailers)

Retailing is a trading activity directly related to the sale of goods or services to the ultimate consumer for personal, non-business use. A retailer is the last middlemen in the machinery of distribution and he is responsible to satisfy the recurrent wants of consumers. Retail trade is selling of varied goods in small quantities of the final consumer. There are three distinguishing features of retail trade. The retailer deals in small quantities and his business is usually local in character. Secondly, retail trade always shows tendency towards variety as it has to satisfy innumerable wants of consumers. A specialised retail shop is an exception. Thirdly, a retailer, by operating near about the residential areas of consumer, sells his wares directly to consumers. Manufactured goods are worthless until they pass acid test of retail distribution. The retailer alone can offer safe and reliable goods to consumers.

Functions of Retailers

The following are the functions and services of all kinds of retailers:

1. A retailer aims at giving maximum local convenience to consumers. In every residential locality we have a full set of retailers to satisfy our daily wants.

2. Consumers need not store the commodity beyond their normal requirements. Any article in any quantity is always available on demand at the retailer's shop.

3. A retailer usually maintains wide variety of stocks. He may have all popular brands of one article. Thus, consumers are provided variety of choice and hence selection becomes easier for them.

4. Through personal salesmanship, window display and demonstration, a retailer attracts customer's attention to new goods and supplies information about the arrival of new goods. A new demand can be created for novelties.

Retailers
(Middleman in Distribution)

Buying for Consumers	**Selling for Producers**
1. Anticipating wants	1. Expert seller
2. Breaking of bulk	2. Advertiser of goods
3. Transport and warehousing	3. Bulk breaking
4. Financing	4. Financing
5. Product guarantees	5. Storage
6. Repairs and installation	6. Feedback source of consumer needs and reactions.

Fig. 9.8 Retailer Linking Producer and Consumer

5. A retailer sells not merely the goods but services to the customers. He wants to establish a permanent and continuous relationship with consumers. For this he gives reliable advice and guidance to customers. In the light of his specialised information and expert advice consumers can make their purchases under favourable conditions. Retailer can pass on benefit of their specialisation permanent customers. For instance, when the retailer anticipates shortages and rise in prices of certain goods, he would advise his permanent customers to make their purchase immediately in advance so that they may not feel any convenience later on when rise in prices takes place as per his expectations.

6. In relation to producers and wholesalers, retailers act as the last outlet for distribution of goods within the country. A retailer is the connecting link between the wholesaler and the consumer. Individual sales in small quantities is the responsibility of the retailer. In the absence of retailers it would be impossible to

distribute goods to ultimate consumers and most of our wants will remain unsatisfied. In short the entire trade will be paralysed.

7. Retailers are absolutely essential in meeting daily demands of consumers for fresh foodstuffs, vegetables, fruits, milk, etc.

8. Personal services offered by retailers to their regular customers assure individual satisfaction. Retailers help customers in making wise selection of goods.

9. Specialised retailers offer durable and costly consumer goods on installment sale basis. Even ordinary retailers give credit to their regular customers.

10. Retailers have personal contacts with the consumers and users of products. They can easily provide feedback information to wholesalers and manufacturers on the latest changes in consumer wants and preferences.

Prerequisites of Retail Trade

The success in retail trade primarily centres round a proper combination in six factors.

*1. **Location:*** the ultimate success of most retail operations is governed by favourable location. Prime location assures continuous prosperity.

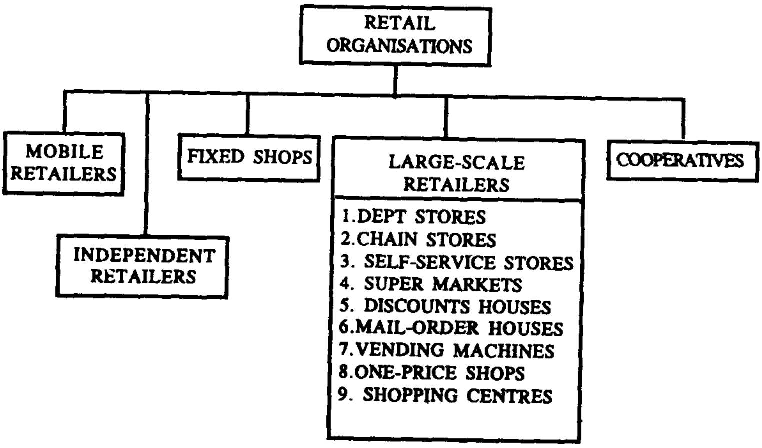


Fig. 9.9 Types of Retailers.

2. ***Price:*** Appropriate price strategy can have the greatest market appeal particularly in inflation. Low price with reasonable quality and due service can work wonders in retail trade.

3. ***Promotion:*** Unique advantages of promotional campaigns explain considerable success in retailing. Retailing is the toughest 3 feet (retail counter) in the channel of distribution. If these 3 feet are not crossed (with the help of sales promotion, *e.g.*, point-of-sale/purchase display), all other sales efforts are useless. Active co-operation between manufacturer and retailer in promotion mix can guarantee flourishing sale, assuming that the product or service is intrinsically sound and price is quite reasonable. Right time and money can make promotion effective.

4. ***Buying:*** A retailer can acquire highly desirable goods, indicating good values to his customers, through shrewd buying practices and sound decision making ability. He should act as expert buying agent on behalf of his customers. Intelligent buying decisions give rich dividend in retail trade. Acid test of retail success is consumer satisfaction, *i.e.*, emphasis on the sale of want-satisfying utilities only.

5. ***Service:*** Retailers give non-price competition essentially through personalised services. Prompt and courteous service, quality assurance, sale on approval, money back guarantee, service after sale, free home delivery, grant of credit, securing goods to satisfy individual taste and liking, offer of expert advice to customer, and comfort and convenience in the store—all these are welcome by customers and their patronage goes to such retailers who aim at securing profits through service. The retailer must follow the policy illustrated by such quotations, *e.g.*, 'The customer is always right', 'It pays to be customer-minded and the customer is king/queen'. 'He who serves best will profit most'. These quotations emphasize the concept of service not profits as the chief objective of the seller in the market place. Most customers prefer warm and friendly atmosphere.

6. ***Efficient Management:*** Better planning, organisation, and control can offer efficient retail operations. Proper selection, training, remuneration and motivation of salesforce will also assure higher efficiency. If a retailer plans his inventories, in detail, buys and sells according to plan, at the end of the year he will have his predetermined profits.

The goal of a retail store should, by and large, be: (1) to serve the community, (2) to provide employment opportunities for people, and (3) to make reasonable profit. The success of a retailer depends much on his ability to serve a real need of the people. The retail store has an obligation to its employees. They have to be well motivated and kept contended. Profit is an important consideration in the management and operation of a store. High taxes, keen competition and increased cost of sales, all have an unfavourable effect on the profits of the retailers. Efficient stock control, wise merchandise investment, cut in unwanted expenses and general expense control, personalised services to the customers, adoption of modern principles of business management, etc., are some of the progressive measures by means of which retailers can ensure reasonable profit margins. It, however, depends upon the size and capacity of the retailers.

*1. **Itinerant Retailers :*** They are represented by hawkers, pedlars, street vendors, stall holders in fairs and exhibitions. In this form of retail trade, the seller has no fixed locality, but carries his goods from place to place. This form of trade is very old. The hawker is a very familiar figure in our villages and towns, sometimes carrying goods, on a wheeled carriage. The following are the prominent features of such mobile retailers.: (1) No fixed place of business. (2) Require little capital and limited organising effort. (3) Keep limited stocks on hand and yet quick turnover. (4) Offer greatest convenience to consumers by giving delivery of goods at the door of the consumer. (5) Easy to start with minimum establishment expenses. (6) Suitable for the sale of perishable articles such as vegetables, fruits, milk, bread, eggs, etc.

Some retailers offer a very keen competition to small-scale fixed retail shops who look upon them with disfavour. The hawkers and pedlars will continue to exist as long as they offer. (1) local convenience to purchasers, (2) charge lower prices as they have no establishment charges and buy from wholesalers at wholesale rates, and (3) sell useful goods through house-to-house canvassing and home deliveries.

*2. **General or Special Shop :*** A small retail shop may be general shop having a wide variety of goods or it may specialise in a particular line of goods. Grocery shops and provision stores are general retail shops, while a radio and jewellery shop are specialised ones. Independent small and retail shops account for more than 80 per cent of all the retail organisations in any country. However, with the growth of large scale retailers like multiple shops, supermarkets, department stores, they now account for hardly 60 per cent of the total volume of retail trade and the rest *i.e.*, 40 per cent is carried on by large scale retail organisation. Majority of the retail shops are usually organised as sole traders or partnerships, and are generally owned by the households. A unit store or retail shop can also act as a side business or supplementary source of income to many families.

Survival of Small Traders

The traditional retail shopkeeper has a few selling points: (1) offer of great local convenience to customers, (2) personal attention and services, (3) temporary credit, (4) longer shop hours, (5) free home-delivery service, (6) guidance to the customer in making wise selection of goods. A small retail shop or unit store requires limited amount of capital and organising power as well as limited marginal skill. It has low establishment charges. It hardly requires much publicity as the manufacturer or wholesaler advertises the product which is easily known to the customers. The proprietor has a flexible selling policy. He makes concessions and allowances to please a good customer. This is not possible for a branch manager of a multiple shop. That is why the unit shop still survives even against big retailers.

Large-scale distribution technique cannot reap all the advantages of large-scale operations. Because in distribution, we have to satisfy millions of people who are also widely scattered over a wide area in all countries. Hence, there are two unique demands of consumers, *viz.*: (1) local convenience in purchases, and (2) personalised services to satisfy ever-changing psychology of the consumers. Large-scale retailers find it difficult to fully satisfy these two basic demands of consumers. But the small unit shops can offer 100 per cent satisfaction in these respects. Under normal trading conditions, there is no doubt that the large retailers are able to under sell their unit shop's rivals. Even so for the reasons mentioned above, the unit shops still survive and will survive for a long time in retail trade.

Measures to Overcome Competition from Big Retailers

A small retailer suffers from certain handicaps: (1) unfair price competition from big retailers, (2) lack of modern sales promotion devices, *e.g.*, attractive window display, (3) inadequate advertising, (4) unfavourable terms of purchases due to small orders, (5) lack of capital, and (6) lower capacity of risk-bearing.

The small retailers try to overcome some of these disadvantages in the following manner:

1. Co-operative Buying: Bulk purchase is the key to cheaper prices. Group buying can secure more favourable terms and prices because it enables small units to meet chain store competition. The small retailers may form a co-operative association for conducting joint-purchases on a large-scale basis, and reap the benefits of bulk purchases. This trend is noted in the grocery trade.

2. ***Modern Business Principles:*** The small retailers may undertake modernisation of their business practices and operations to secure maximum economy and efficiency in their trade.

3. ***Cash and Carry Warehouse:*** Some wholesalers sell at lower prices instead of offering credit to retailers and free delivery services. Thus, the small retailers get the chance to buy at cut prices and to sell as low as their rivals in the multiple shops.

4. ***Wholesalers' Specialist Services:*** The small shopkeepers can take full advantages of the specialised services of the wholesaler. On goods whose prices are fixed by the manufacturer, the small trader has the same gross profit as big stores, whereas the big retailers have to perform themselves all wholesaling functions, when they by-pass the wholesaler.

5. ***Co-operative Groups or Chains:*** In fact, on account of development of large-scale retailing, wholesalers as well as small retailers have been adversely affected. Therefore, recently both the wholesalers and retailers have united to fight against their common enemy, the large retailers. They form a voluntary or co-operative chains which enable the small traders to get the benefits of large-scale purchases.

A voluntary chain is an association of independent retailers, sponsored by a wholesaler. The wholesaler will furnish various services to the member retailers, who in turn will buy all their merchandise from this wholesaler. Due to very big buying power of the association, the wholesaler is able to buy at prices competitive with large chain stores. A co-operative chain of retailers is instituted and sponsored by a group of independent retailers who jointly buy and operate a wholesale warehouse. Il has the same basic purpose as the voluntary chain, *i.e.*, to face effectively competition from corporate chain stores. In a voluntary chain (sponsored by wholesalers) a wholesaler provides merchandise to a group of independent retailers and also offers services of buying, advertising, accounting, store layout and inventory control to retailers. In a co-operative chain the retailers have common buying, warehousing and transporting services for all members.

LARGE-SCALE RETAIL ORGANISATIONS

The large-scale retailers are: (1) Mail-order business, (2) Consumers' Co-operatives, (3) Vending Machines, (4) Discount

Houses, (5) Self-Service Stores, (6) Supermarkets, (7) Department Stores, (8) Multiple Shops or Chain Stores, and (9) One Price Stores.

Advantage of Large-scale Retailing: (1) Benefits of bulk purchase, (2) Superior management personnel and specialised management practices in the form of better planning, organisation, and control and consequent benefits of specialisation at all levels. (3) benefit of mechanisation and automation in retailing operations. (4) Financial strength due to adequate capital resources. (5) Effective use of advertising and salesmanship techniques. (6) Full scope for experimentation, innovation and marketing research. (7) Development and promotion of their own brands. (8) Maximum risk-bearing capacity.

These and other advantages of large-scale organisations are responsible for the popularity of such large retail organisations in recent years. We shall now study these large retail organisations.

1. Mail Order Sale

Standardisation, grading, branding, and packaging brought about the growth of mail order sale, *i.e.*, selling or shopping by post — described as 'arm-chair shopping'. The seller approaches the prospects by mail publicity, *i.e.*, sending circulars, price-list, catalogue, booklets, pamphlets, samples, etc., through the post office. Up-to-date mailing list is maintained. All selling is done invariably through regular advertisements and direct mail publicity. Sometimes local agents are also employed for order collection, execution as well as collection of dues, when sale is by instalments. However, usual orders are collected as well as executed through the mail by V.P.P.

Goods Suitable for Mail Order Business: (1) Lighter, valuable durable, standardised and branded goods. (2) Goods having regular demand and well known in the market. (3) Goods which can be precisely described and advertised with pictures and demonstration. (4) Goods which can offer sufficient margin of profit to cover postage, advertisement, publicity, and cost of transport.

Examples of Goods Sold by Mail Order are: (1) Books, (2) Toys, (3) Cutlery, (4) Watches, (5) Fountain pens, (6) Clothes, (7) Footwear, (8) Seeds, (9) Small appliances, (10) Common drugs and cosmetics, (11) Ready-made foods, (12), Records, (13) Household furnishing etc.

Advantages

1. An independent mail order business can be conducted at any place. It need not have a big shop or an office on the main streets of a city, and can save the cost of sales.

2. If it acts as a middleman and an order collecting agency on behalf of the wholesaler or manufacturer, it will not be required to purchase stocks and maintain a warehouse. Thus, the capital requirement will be meagre.

3. The running and establishment charges are low. There will be a saving in shop rent, servant' s charges, freight for bringing goods to the shop and then to the buyer, thus, it can give a very good competition to the department stores and other retail shops. It can also quote lower prices than local retail prices.

4. It can be adopted as a side activity by the departmental store to eliminate the disadvantages of lack of local convenience. An enterprising manufacturer also can establish direct relations with consumers by opening a mail order section in his sales organisation.

5. It gives maximum local convenience just like street vendors and pedlars. The buyer gets home delivery of goods and will not be required to waste time and money in going to the city for purchasing his requirement. He can place his order on the basis of catalogue, sales literature, samples etc.

6. The mail order advertisement reaches all persons. So all of them become prospective customers. The advertisement can be accurately measured by 'keying' it and the successful media of advertising can be ascertained. The seller can thus concentrate on those media only.

7. Recently, in many countries mail order firms have started credit sale of non-durable goods. Interest-free credit is given up to six months. Many families of average means find it convenient to pay by instalments for clothing, footwear, household furnishing, linoleum, etc., over a period of six months.

8. Recently, in many countries, mail order firms have started selling goods on 'sale or return' basis and also give full guarantee regarding quality of goods. Now we can get nationally branded goods at our residence at normal shop prices, from mail order firms.

2. Consumer Co-operative Stores

Just as multiple shop system is an instrument in the hands of a manufacturer to eliminate all middlemen in distribution, similarly, a co-operative store is an organisation owned, managed and controlled by consumers themselves to reduce the number of middlemen and their commission.

Features of a Consumer Co-operative Store

1. It is a voluntary association of consumers duly registered under the prevalent Co-operative Societies Act. At least ten members are required to register a society or store. The registration gives certain privileges and exemptions which are not available to other non-co-operative bodies.

2. Members of the store make joint purchases and sales among themselves at the current market prices. Sale at market price is preferred to avoid unhealthy competition with other retailers.

3. Membership is open to all. Wealth is not a criterion: rich and poor are treated alike. However, stress is given on the moral character at the time of admitting a person as a member.

4. The store has a share capital of a small face value and the amount is recoverable by instalments. Every person has to pay an entrance fee.

5. Management of the store is democratic and generally honorary. One man, one vote is the rule. Day-to-day management is in the hands of permanent paid officers. The general meeting of members every year appoints an executive committee to look after the management of the store.

6. A definite percentage of profits is utilised for social and educational purposes. Profits after payment of limited interest on capital are utilised for the distribution of dividends. The amount of dividend is based not on the shares held but is linked with the amount of purchases made by the members. This linking of dividend with the purchaser is a unique principle in co-operative stores. It secures two advantages. Firstly, every member in his own interest will try to make maximum purchases from his store and this will ensure automatic loyalty of members to their store. Secondly, if every member makes maximum necessary purchases, the store will have maximum sales and maximum profits without any resort to advertising.

7. As consumers' co-operation is essentially meant for working class and lower middle class population, capital will naturally have a secondary role. In co-operation honesty and loyalty are capitalised and more emphasis is given on the moral character of the members. Personal security is the best security honoured in a co-operative organisation.

8. The liability of members is generally limited by shares.

9. The accounts of store are audited by the Registrar of Co-operative Societies or a person authorised by him.

10. Before declaration of dividend, at least 25 per cent of the net profits must be credited to the General Reserve and 10 per cent to the General Welfare Fund or a similar fund for social benefits of members.

3. Vending Machine

The coin-operated vending machines are used as a complementary form of retailing many goods and services, *e.g.*, sale of cigarettes, soft drinks, hot beverages, candy, chocolates, platform tickets, milk, etc., and services such as laundering and insurance policies. Thus, well-known pre-sold, pre-packed brands with a high rate of turnover can be sold successfully by vending machines. The goods should be reasonably low in value, small and uniform in size and weight.

The initial cost is quite high including expenditure on regular maintenance and repair. Consumers cannot feel or see a product before buying. They do not offer opportunity to return unwanted goods, packaging requires special attention. The owners have to develop special packs to suit the machines. The machine must present attractive appearance and must be reliable in its operation. The machines are frequently used to supply a certain service to the employees and to get night time business by the retail store. They have a promising future in retail sales with the growth of the economy.

4. Discount Houses

The latest addition to the various types of retailers is the so-called discount house which bought about a revolution in retailing since 1950. The discount houses are large retail stores, freely open to the public, advertise widely, stocked with well-known brands of hard goods *e.g.*, appliances, home furnishing, sports goods, jewellery etc. They operate in heavily travelled but low rent areas. They spend minimum amount on premises, furniture and fixture and offer very few customer services.

A new class of consumers consisting of large middle-income group of people emerged after the Second World War and these people were price-minded. These people preferred low prices and few services. With so many wants and limited purchasing power, the supermarkets and discount houses were most suitable. Branding, packaging and advertising required little sales efforts and local sales promotion. Thus, the situation after 1950 in many countries was ripe for major changes in retailing. Discount houses saw great prospects in a low margin, high turnover type operation, with very few services but big price cuts. They should reduce their operating expenses to about 15 per cent of sales while department stores and limited line stores had operating expenses up to 35 per cent of sales.

5. Supermarket

A supermarket is a novel form of retail organisation specialising in necessaries and convenience goods. Usually it concentrates on all food articles groceries, meat, fruits, vegetable and tinned products. Non-food items sold by these stores should satisfy a few conditions. Firstly, it must be widely used and must appeal to general consumers. Secondly, a non-food article must be a branded product, *i.e.*, pre-sold to customers through intensive advertising. Thirdly, it should be a low-priced article.

The following are some distinctive features of supermarkets which are very popular in the U.S.A. and Europe:

1. It is a large, cash and carry store. It saves in terms of credit facilities and delivery expenses.

2. A big supermarket may have a very wide variety of articles sometimes covering thousand of items.

3. There is no sales pressure. Buyer is at ease and gets sufficient time for selection. The supermarket represents the most developed form of self-service retailing. The distribution is cheaper. Self-service is a general rule and buyer may be provided with conveyance on wheels to carry his purchases from point to point. Thus, it provides individual selection without a salesman.

4. Packaging plays a very important part. Immediate identification regarding contents, quality, price, etc., is provided by packages of products which are kept on self-service shelves. Transparent packing helps to meet these requirements.

5. It has a minimum selling area of 3,600 sq. metres (60 mt.) by 60 mt.) It must have a central situation and expert management to secure a very high turnover.

6. Self-service combined with the large buying power and low percentage of profit margins means that supermarkets can sell at low prices. This low price appeal is an important feature of supermarkets.

7. Modern packaging, labelling and branding devices have encouraged the growth of self-service shopping and supermarkets, which provide a number of advantages, *e.g.*, reduction in the sales staff, cut in establishment or running costs. Bulk purchases are always cheaper. Hence, sale prices can be kept down.

8. Self-service shopping and supermarkets may be operated by co-operatives and department stores.

9. More than 75 per cent of the sales in grocery in the U.S.A. were done by supermarkets in 1975. Supermarkets have rapidly taken over food retailing. They have also added non-food items.

10. All supermarkets at present are usually run by limited companies.

11. At present, discount selling in food articles is also undertaken by the supermarkets.

12. Supermarkets are cut-piece and self-service chain stores. They give very keen competition to all types of retail shops. The policy of 'loss' leaders followed by the supermarkets leads to cutting the price of some popular article *e.g.*, sale of sugar much below the market price. The loss on sugar are fully compensated by profit on the extra sales secured for other goods bought by the house wives.

Superstore:

A superstore (a hypermarket or a super-super-market is the best example of scrambled merchandise or diversification in retail trade). In addition to usual food products, a Superstore tries to fulfil many other consumer needs, *e.g.*, tobacco products, apparel, housewares, hardware items, books, records, hobby items, garden products, sport goods, photographic materials, etc. Even some household services such as laundry, shoe repair, beauty parlours are also provided.

6. Shopping Centres (In Suburban Areas)

Modern trend in retailing is towards increasing decentralisation. A shopping centre is a group of commercial establishments planned, developed owned and managed as a unit related in location, size, and type of shop to the trade area it serves, and it provides also necessary amenities to the shoppers at one place. Planned shopping centre is an integrated retail unit. Shopping centre concept represents a natural evolution of urban expansion.

We have well-planned and organised shopping centres to offer maximum shopping convenience in the form of one stop shopping. A shopping centre is designed, developed and operated, usually by a company, near about large residential complexes so that shoppers have easy access to it. It may consist of numerous retail stores (small and large). These shopping centres or malls offer very wide variety and assortments of consumer goods. Such concentration of retail trade makes shopping very convenient particularly to the surrounding ever-growing suburban regions. The retail trade from the central metropolitan cities to suburban regions. The retail shops in the shopping centre evolve a joint promotion campaign to attract suburban customers. A consumer can save time, energy, and travel costs, and can make all purchases at one place. Shopping centres resemble central city shopping districts. They are changing consumer shopping habits as they reduce the need or urgency to go to the central city in order to make their purchases: These new retail units have reduced the importance of the central city's downtown district or older *main street* suburban business district.

7. Department Store

A department store is a huge retail shop situated at a central place in the city, divided into a number of small shops or departments each dealing with one or two lines of good and specialising in those lines. All such departments or speciality shops are under one roof and under one management and control. Such a kind of huge retail organisation, many a times looking like a miniature township, is usually owned by a big company as it requires huge capital. Thus, a unit of sales organisation assumes a very big size under a department store.

The department store is, therefore, a mere collection of shops all under the same palatial building, each shop dealing in a particular line of retail trade. This kind of shopping is often referred to as 'one-stop' shopping. Instead of increasing sales by opening branches to sell the same goods (Multiple shops), a business can as well sell different kinds of goods in the same building (Department Store)

Distinctive Features

1. The basic principle of department store is that is easier to sell more goods to the same customer by keeping a wide variety of goods than to find many customers for the same kind of goods. Hence, a department store acts as a universal supplier of a wide variety of goods. It tries to satisfy all expected human wants under one roof. Thus, it provides maximum shopping convenience, so that a customer may make all his purchases at one place.

2. Management, control and sales are centralised.

3. Location of the store is at a central place. It is the most important factor in determining the success of the entire organisation. The store is usually situated in the heart of the city where maximum number of people do come for some purpose.

4. It caters to the needs of richer and better class of population. It gives more emphasis on quality and bigger choice of goods, and on

other services and comforts. Price is given a secondary consideration and hence, it cannot suit the requirements of poorer people.

5. It has to pull the customers by continuous advertisement, window display, etc. In order to attract people to the department store, one of the departments may be used as a loss seller, *i.e.*, it may be run at a loss to boost the sales other departments. Some departments are included for 'prestige' reasons. This practice is common in the U.S.A.

6. It maintains very large number of consumer goods and a wide variety of their designs, colours and styles.

7. Purchases of all departments may be centralised, *i.e.*, carried on by the Purchase Department, or may be decentralised, *i.e.*, carried on by individual department concerned. Under the system of decentralised purchases, each department manager is allotted a definite monthly sum and he may be given liberty to make his own purchases within that fixed sum.

Advantages

*1. **Shopping Convenience:*** A department store enables a customer to purchase all requirements at one place. Thus, it saves the time and labour of the customers required in going to different shops; department stores deal in everything required for daily life. For instance, a newly married couple can establish their home by purchasing all their requirements at one place.

*2. **Automatic Mutual Advertising:*** One department advertises for the other. A customer, who enters the store to purchase a couple of articles, can easily be persuaded to purchase so many other articles from other departments situated in the same building.

*3. **Offer of Complete Service:*** Facilities and services offered by the store attract considerable number of customers. One does not like to go to other retail shops. The courtesy, fair treatment and services such as free home delivery, increase the sense of laziness, love of luxury and temptation for all kinds of comforts while making purchases. For durable consumer goods, like radio or TV sets, tape recorders, refrigerators, washing machines, electric appliances, etc., hire-purchase system is always offered to the customers.

*4. **Central Location:*** The stores are housed in the heart of the city. It is, therefore, easily accessible to all persons staying in the surrounding localities. The central situation, attractive window display, comforts and amenities, and intensive advertising attract a very big number of customers than an ordinary shop situated in a corner of a street.

5. ***Wide Selection:*** Since a department store keeps very wide variety of goods of different designs, colours, styles, etc., a customer can make much better selection of goods at the time of purchase.

6. ***Economies of Large-scale:*** At it is a large-scale organisation, that enjoys all advantages and economies of a large-scale organisation.

7. ***Attractive Capital:*** It possesses huge capital and hence, it can spend considerable amount of money on continuous advertising to keep its name before the public. Through periodical grand sales and reduction sales it attracts attention of the public and becomes very popular.

8. ***Attractive Layout:*** The layout of the store is convenient and attractive to customers.

Disadvantages

1. ***Absence of Local Convenience:*** Since the stores are situated far away from the residential areas, suburban people cannot take advantage of the department store. The absence of local convenience is partly compensated by opening a mail order section in the department stores.

2. ***Higher Prices:*** Such stores have to pull customers and hence, they have to offer extra services and facilities. They have also to incur heavy expenditure in window display, advertising, etc. The establishment and overhead charges of a department store are considerable. So the prices charged by the store are slightly higher than those charged by other small retail shops. Only richer persons, who care for quality and service and not for price, will take the advantage of the department.

3. ***Higher Risk of Loss:*** As the purchases are made on a large scale, an error of judgement by the 'buyer' will involve the firm in great financial loss. Changes in taste and fashion, and market fluctuations in prices will also affect adversely a big department store. There may be constant danger of dead stock in the store. Heavy expenditure in advertising as well as salaries of assistants and department managers reduce the scope of profits. Such stores have a better future in a highly industrialised country like the U.S.A. and the U.K. than in a developing country like India, where general standard of living is low and where bulk of the population resides in rural areas and small towns.

4. ***Limited Scope in Developing Countries:*** The department store requires huge amount of capital. Hence, they have scope in less advanced countries like India, where there is limited universal

shortage of capital. Furthermore, in a developing country like India top priority is given to economic development and investment in costly consumer goods is relatively discouraged. Hence the department stores in such a country deal in general variety of articles instead of ultra-modern and luxurious goods.

8. Multiple Shops or Chain Stores

A multiple shop system is a network of a number of branches situated at different localities in the city or in different parts of the country. All branches are under central ownership, management and control. It is a compromise between large-scale and small-scale organisation; it tries to secure advantages of both and eliminate their disadvantages. For instance, management, purchases and control are centralised while sales are decentralised and carried on a small scale.

Types of Multiple Shop

*1. **Manufacturer's Organisation:*** When a manufacturer wants to approach consumers directly, he starts his own retail branch shops either in different localities of the city or the state or even in the whole country. Thus, a manufacturer undertakes all three functions of producer, wholesaler and retailer.

*2. **Retailer's Organisation:*** The chain stores may be owned by a big retailer and all the branch shops may be chained together and brought under one unitary control. The multiple shop of retailers can obtain supplies directly from different manufacturers instead of from wholesalers. They buy in bulk, and perform the work of the wholesaler particularly, transport, warehousing, risk bearing and financing.

Organisation, management and governing principle of multiple shops (manufacturer's organisation) and chain stores (retailer's organisation) are similar. However, chain store are strictly the retailer's enterprise to eliminate the wholesaler; whereas multiple shops are the manufacturer's enterprise to eliminate all middlemen including the small retailers. In chain stores we have wide variety of goods, whereas, in multiple shops we have only a particular line of goods.

Distinctive Features

1. Multiple shops specialise in one or a couple of lines of goods. The range of articles is strictly limited. The articles sold through all branches are of like nature and uniform price. Usually, a well-known article or service is sold by them.

2. They try to give maximum local convenience to the customers. In each residential area, we may have a branch shop.

3. Management and control are centralised.

4. Purchases are centralised and carried on by the head office.

5. They concentrate on a few standardised articles which require no special effort. Articles are usually necessaries of life giving quick turnover and having a steady demand.

6. Selling activity is completely decentralised and branch shops are just like ordinary retail shops.

7. The buyers do not require much pulling through advertising campaign.

8. All sellers are strictly on the cash basis and no credit is granted to customers.

Advantages

1. Multiple shops owned by a manufacturer eliminate all kinds of middlemen between the producer and the customer.

2. Multiple shops have the benefit of specialisation in a particular line of goods.

3. Articles are sold at uniform prices in all branch shops. This creates public confidence. Goods are of standard quality.

4. Economies and advantages of large-scale organisation can be secured.

5. Advantages of decentralised selling also can be secured. Failure or closure of one or two branch shops will not affect the entire organisation adversely. Concentration of all business at one place and consequent locking up capital at one place in the case of department store becomes very risky, because if after a certain period the situation loses its old importance, the future of the store becomes very dark.

6. They have common advertisement for all the branches as they are under unitary ownership.

7. All branch shops usually have uniform external and internal display. Even the furniture and fixture are of uniform colour and design. This makes identification of the branch shop very easy, *e.g.*, a branch shop of the Bata Shoe Company can be easily recognised in any locality.

8. Multiple shops try to give maximum local convenience just like other retail shops. In every important locality, there will be a branch shop.

9. Shortage of stock at one branch can be remedied by transfer of stock from branches having surplus stocks.

10. As sales are strictly on the cash basis, there is no risk of bad debts.

11. As there is no extra cost of services and comforts (as in the departmental stores), multiple shops can have more benefits. Similarly, there is saving of middleman's commission. Hence, they can pass on this benefit to customers in the form of reduced prices.

Disadvantages

1. Insofaras the branch shops are situated in the interior, they do not attract large number of customers and they suffer from the same handicaps as a centrally situated department store.

2. Such shops deal only in a few articles and only in well-known brands. So buyers have limited choice. They cannot make all their purchases at one place.

3. As purchases are centralised and carried on a large scale, great accuracy and judgement are required in purchasing goods. If market conditions go against the expectations or if fashions and tastes change suddenly, there will be no sales and danger of dead stock at the head office may lead to heavy losses.

4. As there are many branches, a system of strict supervision and control through district and regional inspectors becomes necessary. Even then there is always the possibility of fraud.

5. Branch manager of a shop is just a head salesman. He has no initiative. He has no voice in making purchases and fixing the prices of goods. A 'buyer' of department store has full voice in his purchases.

6. The multiple shop business has to buy in bulk, do the work of the wholesaler, provide large warehouses and transport to the various branches, and has to bear considerable risk of loss. If it acts as a manufacturer also, it has to perform all the functions itself. This means that it cannot have the advantage of specialised marketing services rendered by wholesalers and retailers. It may have big gross profit. But its net profit may be modest.

7. There is no credit system. The cash and carry system may be burdensome for many customers.

8. Multiple shops sell standardised goods. They cannot give satisfaction to peculiar local or individual demands.

9. Standardisation is the main feature of chain stores. It is also a major factor of their success. But it means lack of flexibility. Rapid adjustment to local market environment is difficult for a corporate

chain store organisation. Hence, local store manager needs greater freedom to adapt with changing market demands.

9. One Price Shop

The fixed or one price shop is a typical kind of retail organisation in which one identical price is fixed for a very large variety of articles of everyday use. The articles are low price and they appeal to bargain making instinct, rather something-for-nothing instinct of human being and due to this, these shops get a huge amount of sales turnover. The margin of profit per article is very low but the profit on the total sales turnover is quite substantial. As the common price for all articles is purposely kept at a low level, these one price shops can serve as good instruments for mass distribution. Such one price shops can be chained together and run in the form of chained one price shops. All units will be under one ownership, management and control.

The purchases are usually made by a central office or a depot. The central organisation makes a wise and careful selection of a wide variety of goods of about the same price or within a narrow price range. The selected articles are procured from manufacturers or manufactured by the concern on a large scale. The central organisation of one price shop tries to eliminate all show selling lines and concentrate fully on those goods which have a large and continuous demand.

As there is same price for any article, the buyer is at ease and he is given full opportunity to choose whatever articles he likes. In India we come across many mobile retailers of this variety crying *'Har ek mal do do Rupaya'* (Rs. 2 only).

Changing Pattern of Retail Trade

The retailing structure is dynamic or everchanging. There are three forces causing change and innovation in retailing: (1) Under customer-centred marketing approach there is everincreasing need to serve consumer demand (ever changing preferences, tastes and fashions) in the market sincerely, (2) There is constant search for more, novel and effective methods of retailing to face keen competition in the retail trade, (3) changing methods of distribution are being adopted by big manufacturers, (4) Importance of professional management, and (5) Intense drive toward rising productivity.

We may summarise changing trends and prospects in retail trade since 1960:

1. Ever growing importance of branding of goods.
2. Modern means of mass communication.

3. Revolution in packaging. No packaging, no brands, no advertising, no sale.

4. More even distribution of wealth and the emergence of a big middle-income price-conscious people with growing effective demand for rising living standards.

5. Growing employment of women—limited time for household, shopping only a few hours per week.

6. Growth of large-scale retail enterprises particularly self-service, cash and carry, low price. retail stores selling food as well as non-food articles (indicating trend of diversification in product line).

7. Mechanisation and automation also in retail trade operations and practices. Vending machines are employed to sell goods when the stores are closed.

8. Chain stores, supermarkets, discount houses, mail order house, self-service stores, are the important and popular retail organisations.

9. Reply of small retailers to competition from large-scale retailers. *(a)* Co-operative buying associations of retailers for bulk purchases, *(b)* wholesaler sponsored voluntary chain of independent retailers with one or a few wholesalers, *(c)* cash and carry wholesalers.

10. Trading stamps, gift coupons as additional attraction to consumers. Free gift with large purchases by consumers and sale at reduced prices for buying in large quantities.

11. When one type of store adds products that usually were sold by other types of retail outlets, we have a *new trend* and *scrambled merchandising*. For example, a supermarket is essentially a good retailer. When it also sells non food lines such as drugs, hardware, utensils, garden supplies, books, sport goods, etc., we get scrambled merchandising phenomenon.

12. Retail shops are offering the customers machines, appliances and equipment on hire or on instalments.

Since 1950, in the U.S.A. as well as in the European market we are witnessing methods of mass marketing. For instance, a large U.S.A. dress manufacturer knows the most efficient way to plan production of 80,000 dresses of the same colour, style and fabric. His advertising and marketing experts know how to find 80,000 women who will buy the 80,000 identical dresses. The modern trend in retailing business is towards creation of customers on permanent basis.

As we see, various problems of marketing such as reduction in selling cost, improvement in customer services, moral and ethical issues in advertising and sales promotion, competition and such other difficulties are now being resolved through better planning, better management and control over sales and channels of distribution.

Managing Middlemen

It' is understood from the previous paragraphs that both wholesalers and retailers are equally important in the indirect channel of distribution. They can push up or pull down sales. Hence the dealer network has to be properly managed.

The management of dealers includes the following aspects :

- Providing continuous information about company products, policies, and other relevant aspects.
- Inducting new dealers at appropriate time.
- Continuous training to dealers in improving their selling techniques. Training includes, inventory management, customer development, credit management, handing sales promotion, managing field force, developing store image, etc.
- Providing incentives to the dealers to motivate them to work in the form of attractive trade margins, prompt delivery, healthy relationship, assisting in developing a good store image, special incentives to hardworking dealers, solving co-operative advertising etc.
- Developing sound communication with dealers through periodic meetings, dealer conferences, dealer training, associating them in product promotion, giving sales tips and advice etc.
- Performance appraisal of dealers periodically to tell them about their weaknesses and giving them proper feedback in selling aspects, sales volume etc. The vital aspects covered in performance appraisal are allotted market coverage, sales facilities, evaluating store image in the eye of public, sales quota clearance, sales facilities, customer services, keeping payment schedules, utilisation of promotional facilities, providing timely market information to the company etc.
- Setting dealer conflicts like complaint of retailers against wholesalers and vice versa, channel disorders, channel members and outsiders conflicts etc. These conflicts have to be resolved well in time.

— Developing dealer loyalty by giving them good compensation at appropriate time for their outstanding performance. Adequate and timely compensation will develop strong dealer loyalty towards firms.

It has to be observed that every producer of goods or service totally depends upon dealer network for marketing their product. Therefore dealers have to be kept active and alive to keep the firm growing. It is obvious that efficient dealer management is must for the growth of any business unit.

POINTS TO REMEMBER

1. **Channels of Distribution:**
   (a) Manufacturer-Consumer Channel (Direct Sale)
   (b) Manufacturer-Retailer-Ultimate consumer
   (c) Manufacturer-Wholesaler-retailer-consumer
   (d) Manufacturer-agent-wholesaler-retailer-consumer
   (e) Manufacturer-wholesaler-consumer-user.
2. **Channel Choice:** Factors which influence channel choice are :
   (a) Nature of the product.
   (b) Market.
   (c) Middlemen.
   (d) Company.
   (e) Marketing environment.
   (f) Competitors.
3. **Middlemen in distribution :**
   (a) Broker.
   (b) Commission agents.
   (c) Dealers.
4. **Wholesalers** — Their services to producers and the retailers.
5. **Large-scale Retail Organisation :**
   (a) Mail order sale.
   (b) Consumer cooperative stores.
   (c) Vending Machines.
   (d) Discount houses.
   (e) Supermarket.
   (f) Shopping centres.
   (g) Department stores.
   (h) Multiple shops on chain stores.
   (i) One price shop.

STUDY QUESTIONS

Part - A (16 Marks)

(2 Marks question — Answer in 4 lines)

1. State any four channels of distribution.
2. What is franchise selling?
3. Who is a wholesaler?

4. Who is a retailer?
5. What do you mean by Mail Order Sale?
6. What are Discount Houses?
7. What do you mean by Departmental Store?
8. What is a multiple shop?
9. What is one price shop?
10. What is Vending Machine?
11. What is consignment sale?
12. What is a super market?

Part - B (24 marks)

(8 Marks questions — Answer in 30 lines)

1. Briefly analyse the five channels of distribution.
2. Analyse the factors that govern the channel choice.
3. Write an analytical note on middlemen.
4. What are the advantages of appointing sole selling agents? Are they inevitable in distribution process?
5. Write an analytical note on wholesaler.
6. Briefly tell about the functions of a retailer.
7. Write a note on mail order business.
8. Write a note on consumer co-operation.
9. What are the advantages of supermarket?
10. Write a note on departmental store.
11. Write a note on chain stores.

Part - C (60 marks)

(Answer 3 pages each — 15 marks questions)

1. Briefly explain the various distribution channels.
2. Briefly explain the factors to be considered to select a channel of distribution.
3. Write a detailed note on large-scale retail organisations.
4. Write for and against the existence of middlemen in the distribution channel.
5. Write a detailed note on the Indian distributive system.
6. Discuss the functions and services of a wholesaler.

"This page is Intentionally Left Blank"

PART-B
FINANCE

1

FINANCIAL MANAGEMENT

Finance — Financial Management Meaning — Goals of Financial Management — Decisions in Financial Management

FINANCE

Finance is one of the major elements, which activates the overall growth of economy. Finance is the lifeblood of economic activity. A well-knit financial system directly contributes to the growth of the economy. An efficient financial system calls for the effective performance of financial institutions, financial instruments and financial markets.

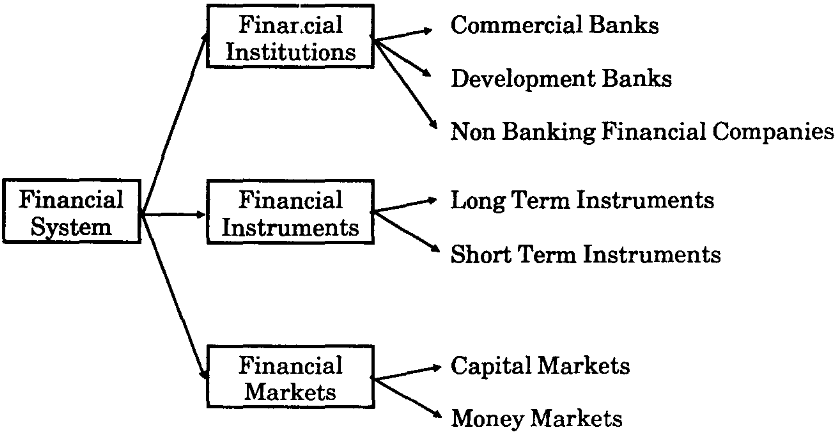


Fig. 1.1 Indian Financial System

Management :

In the present day industrial world, management has become universal. With the increase in the complexities of management of business concerns, the importance of 'management' has increased enormously. The principles of management are being applied not only for managing business concerns, hut also to manage various other service sector institutions like hospitals, educational institutions etc. Hence, management occupies such an important place in the modern world that the welfare of the people and the destiny of the country are very much influenced by it. It is in this context both finance and management functions gained substantial significance in the industry.

Financial Management :

The subject financial management can be well understood by analysing and studying the different phases of its growth.

First Stage: Corporate finance or business finance was considered as a subject of economics. But in the 20th century the scope of this subject was increased. This was because of increased growth of industry and commerce. The requirement of money to these segment was felt, accordingly the utilisation of finance to achieve the corporate goal was aimed. As the availabilities of finance was limited. Judicious utilisation of finance was warranted. This type of training first started in beginning of 20 century in U.S.A. This aptly gave scope for the development of the subject 'Financial Management'. But, the thinking about this subject was entirely different in this century. It was mainly concerned with instruments, institutions and procedural aspects of the capital markets. The type and format of accounting records used then were totally different to the systems what is being followed today. The requirements for finance in those days were or finance came in a big way. Lot of mergers, acquisition, amalgamations, joint ventures dominated the industrial environment. Thus the requirement for finance enormously increased. Capital markets were activated and equity with new financial instruments entered the capital market.

As the demand for goods and services started increasing, several technological innovations took place in 1920s. This resulted in all-round promotion of industries in the world. Huge demand for finance was witnessed. This has necessitated the industries to look into different types of instruments, which could meet the requirements. Arthur Stone Dewing's "The Financial Policy of Corporations" published in 1920 analysed the previous financial policy and also dealt in new patterns of financial operations which were adopted subsequently for operations in the companies and in the academic field. By 1930 "Common Stock", became the centre of interest in corporate financial activity and investment banker became a significant figure.

The Depression of 1930s created confusion in the minds of lenders or investors. During this period, many industries became sick and were closed. Creditors and lenders were worried, the size of bad debt increased, industrialists could not maintain the promises. Due to this, creditors became insecure, bankers lost money, equity shareholders were left without returns and investors lost confidence in the companies. This necessitated the government to bring some discipline in the field of finance. Government started imposing restrictions in the usage of funds and periodical reporting to the bankers was imposed. This substantially contributed to the judicious utilisation of finance.

In addition to this, 'Financial analysis' of the corporation assumed importance and analysts could compare the company's performance with other identical companies. This period was also known as the period of 'Conservatism' and was in existence till 1950s. Subsequently financial analysts introduced the forms of cash 'in flow' and 'out flow' to help the process of decision making.

Second Stage: During this stage (1950s) radical changes were seen in financial management. Innovative techniques of financial management were introduced. Capital budgeting techniques gained substantial recognition. The present value techniques were accepted in the market. 'Capital Budgeting' by Joel Dean (1951) and "Theory of Investment of the Firm" by Friedriech and Vera Lutz (1950) were introduced. From then onwards, a series of changes and innovations made the subject of financial management more useful. The introduction of computer for financial analysis made the analysts' job simple and accurate. Powerful mathematical tools and models were introduced. Operation research (quantification of finance theory) was extensively used. This helped in bringing discipline in financial analysis and brought more fruitful results.

The article published by Modigliani and Miller in 1958 and 1961 added one more dimension to Financial Management. They highlighted impact of debt in capital structure.

The following are the important theories of financial management of 1960s.

1. 1960 - Portfolio Theory - by Harry M. Markowitz.
2. 1964 - A Theory of Market Equilibrium under Conditions of Risk – by William F. Sharpe.
3. 1965 - Security Prices
4. 1972 - The Theory of Finance — by F. Fuma and Merton H. Miller

5. 1970 - Capital Asset Pricing Model — by Sharpe
6. 1976 - The Arbitrage Theory of Capital Asset Pricing

Important Essence of above Theories:

"The risk of an individual asset should be judged in relation to marginal contribution to the overall risk of portfolio assets and not on the basis of possible deviations from the expected returns."

"The efficiency of debt and equity instruments traded in the finance markets was not properly understood until the study in portfolio theory and operations in financial markets were made."

"Source of the risk of the firm was not relevant to investors in the firm's stock as this risk could be diversified away in the portfolios of stocks they held."

"Capital asset theory (Arbitrage) stated that asset valuation/ pricing depends upon multiple factors."

"Risk on investment on corporated securities can be reduced by hedging approach."

"Financial decisions are not only influenced by internal-factors but also external factors."

As a result of this, financial theory has shifted from its traditional approach of "Descriptive Analysis" to current thinking of "Normative Analysis." Originally the financial management was concerned with the mobilisation of funds for running the corporations. But today it has assumed the role of management of assets, allocation of capital and valuation of the firm in the overall markets. Financial decision making within the company is the main subject matter of financial policy. The subject matter of financial management encompasses the issues like maximisation of value to its shareholders represented by the market price of company shares, which is influenced by the company's investment, financing and dividend policies. An attempt is made in this book to narrate these intricate aspects of financial decision making in a simple way.

FINANCIAL MANAGEMENT

Meaning

Financial Management is a specialised function directly associated with the top management. The significance of this function is not only seen in the 'Line' but also in the capacity of 'Staff' in the overall administration of a company. It has been defined differently by different experts in the fields of finance. Some of the important definitions are:

"Financial Management is the operation activity of a business that is responsible for obtaining and effectively utilising the funds necessary for efficient operations."

— *Joseph and Massie.*

"Business finance deals primarily with raising administering, and disbursing funds by privately owned business units operating in non-financial fields of industry." — *Prather and Wert.*

"Financial Management is an area of financial decision making, harmonising individual motives and enterprise goals."

— *Weston and Brigham.*

"Financial Management is the area of business management devoted to a judicious use of capital and a careful selection of source of capital in order to enable a business firm to move in the direction of reaching its goals." — *J.F. Bradlery.*

"Financial Management is the application of the planning and control functions to the finance function."

— *Archer & Ambrosio.*

"Financial Management may be defined as that area or set of administrative functions in an organisation which relate with arrangement of cash and credit so that the organization may have the means to carry out its objective as satisfactorily as possible." —*Howard & Opton.*

"Business Finance can be broadly defined as the activity concerned with planning, raising, controlling and administering of funds used in the business."

—*H.G. Gathman & H.E. Dougall.*

Thus the meaning of the term "Financial Management" has undergone several changes and now it is considered as a subject, which deals with planning and control of financial operations to corporate enterprises. This deals with the procurement of funds and their effective utilisation.

Financial Management- in the Minds of Executives: "Financial Management is a subject which deals with the tools and techniques through which a company's balance sheet is constructed. It offers ideas to the executives in building items in liabilities and assets side of a balance sheet. It clearly guides the financial manager to select both long term as well as short term funds and its allocation to capital and revenue expenditure, this is ultimately used as a communication tool to convince the investors about the performance of a corporate entity.

Balance Sheet

	Liabilities	*Amount Rs.*		*Assets*	*Amount Rs.*
1	Long Term Liabilities (Fixed Liabilities)	?	1.	Capital Expenditure (Fixed Assets)	?
2	Short Term Liabilities (Current Liabilities)	?	1.	Revenue Expenditure (Current Assets)	?
	Total	?		Total	?

Financial Management is therefore inextricably linked with general management that one cannot be separated from the other. It is thus an integral part of general management and not merely a staff function, which is concerned, only with administration of sources of funds. It is concerned with the use of funds as well, and, therefore, with the investment decisions that determines the nature of a firm's business. How to acquire finance for short-term and long-term assets is an important decision-making area of financial management. Both assets and liabilities should be properly chosen. It has both merits and limitations which financial management will have to reconcile. Moreover, such selection would also involve a judicious planning and management of inflows and outflows of funds.

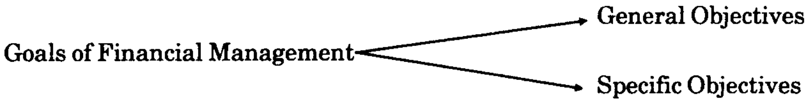


Fig. 1.2 Goals of Financial Management

The ultimate objective of the subject of Financial Management is to fulfil the basic desires of the firms. In the broader concept it has to meet the requirements of not only the shareholders but also the stakeholders. This is achieved through maintaining consistency of growth in the percentage of dividend and market value of shares. Following are some of the important goals/objectives of financial management:

I. Specific Objectives

1. Profit Maximisation: Earning profits by a corporate or a company is a social obligation. Profit is the only means through which the efficiency of an organisation can be measured.

As the business units are exploiting the resources of the country namely, land labour, capital and other resources, it has an obligation to make use of these resources to achieve profits. It is an economic obligation to cover the cost of funds for offer surplus funds to expansion and growth. Accumulated profits reduce the risks of an enterprise. It should serve as the base for all types of decisions. Profit maximisation achieved by an organisation is regarded as a primary measure of its success. The survival of the firm depends upon its ability to earn profits. Though the profit maximisation has many features different people expressed different opinions to consider this as the main goal of a company.

	Points in favour of (Profit maximisation)		*Points against (Profit maximisation)*
1.	Profit is a barometre through which the performance of a business unit can be measured.	1.	Profit is a not a clear term. Is it accounting profit? Economic profit? Profit before tax? After tax? Net Profit? Gross profit or Earnings per share?
2.	Profit ensures maximum welfare to the shareholders, employees and prompt payment to creditors of a company.	2.	It encourages corrupt practices to increase the profits.
3.	Profit maximisation increases the confidence of management in expansion and diversification programmes of a company.	3.	Profit maximisation does not consider the element of risks.
4.	Profit maximisation attracts the investors to invest their savings in securities.	4.	It does not consider the impact of Time Value of money.
5.	Profit indicates the efficient use of funds for different requirements.	5.	The true and fair picture of the organisation is not reflected through profit maximisation.
		6.	Profit maximisation attracts cut-throat competition.
		7.	Huge amount of profit attracts government intervention.
		8.	Some of the industries would like to attain 'Industry leadership' They do not bother about the increase in cost and getting a low profit with huge market share.
		9.	A huge profit invites problems from workers. They demand high salary and fringe benefits.

	10. The modern concept of marketing does not encourage profit maximisation. A huge profit ultimately disturbs the morale of the customers. He feels that, he is exploited by the company.
	11. Profit maximisation is a narrow concept, later it affects the long-term liquidity of a company.
	12. Estimating the exact amount of profit of a company under the changing world is difficult and impracticable task.

From the above points it is clear that firms always would like to have normal profits and profit maximisation in only an illusion. But the companies do earn the profits to pay dividends to shareholders, to meet the obligation of creditors, to offer fair amount of wages and salaries by maintaining high quality of products. Through this, the image of the company will go up. This image offers high returns to the equity shareholders in the stock market, resulting in capital appreciation to the owners in course of time, which is called "Wealth Maximisation."

2. Wealth Maximisation: The concept of 'Wealth Maximisation' refers to the gradual growth of the value of assets of the firm in terms of benefits it can produce. Any financial action can be judged in terms of the benefits it produces less cost of action. The wealth maximisation attained by a company is reflected in the market value of shares. In other words, it is nothing but the process of creating wealth of an organisation. This maximises the wealth of shareholders.

Wealth Maximisation is the net present value of a financial decision. Net present value will be equal to the gross present value of the benefits of that action minus the amount invested to receive such benefits. (NPV = GPV of benefits - investments). The gross present value is ascertained by discounting or capitalising its benefits at a rate, which reflects their timing and uncertainty. Any financial action results in positive NPV, creates wealth to the organisation. If the NPV is negative, it reduces the existing wealth of the shareholders. The total cash inflow of the organisation must always be more than the cash outflows. The surplus inflow of cash indicates the size of wealth, which was added to the total value of the assets. When earnings per share (EPS) and profit after taxes are considered as indicators of welfare of shareholders, they clearly exhibit that 'profit' cannot take care of the welfare of shareholders. An earnings of profits is uncertain and-it is exposed to the risk. A new financial action may bring down the 'economic welfare' of the owners, in spite of the increase in profits.

Examples :

The company has 50,000 shares of Rs. 10 each, has an earning per share of Re. 0.40, with a profit of Rs. 20,000. Assume that, the company has issued an additional capital of 50,000 shares of Rs. 10 each for its financial requirement. Now the profit will increase up to Rs. 30,000 after taxes, resulting in a net increase of Rs. 10,000. Though the additional profit of Rs. 10,000 is increased, the earning per share has come down Re. 0.30. This does not add to the wealth, and hence does not serve the interest of owners. This is the reason why the finance manager always concentrates on wealth maximisation, cash flows and time value of money.

Wealth Maximisation concept has been explained differently by practical financial executives. "When the company's profits are more, he advise the management to keep certain amount of profit for future expansion, through which increases the production and market share. The benefit gained will be passed on not only to the equity shareholders but also uses such additional profits to maintain good relations with the creditors, better payment of wages to workers, develop infrastructure, create more welfare facilities to the society, pay prompt taxes to the government and attain self-sufficiency and earn good reputation in the market, which will be reflected by market value of the shares in the stock exchange. This is a situation where investors can maximise their value of investments. Symbolically, it is expressed as $W_0 = NP_0$.

W_0 = Wealth of the firm.
N = Number of shares owned.
P_0 = Price per share in the market.

Significance of Wealth Maximisation

The company, although it cares more for economic welfare of the shareholders, it cannot forget the others who directly or indirectly contribute effectively for the overall development of the company, namely, lenders or creditors, workers or employees, public or society and management. In this backdrop, let us examine the relevance of wealth maximisation.

Creditors: The creditors or lenders to a corporate enterprise refer to financial institutions, commercial banks, private moneylenders, debentures holders, and trade creditors. The company has to meet their obligation of paying interest and principal on the due dates. Though they are creditors, they are also interested in well being of the company. The earnings of the company assure prompt recovery of their investment. This helps in improving their confidence in industrial financing. It is through which a country can accelerate the economic growth. In addition to this, the business entity will also have an opportunity to earn 'good name' and can increase their 'Liquidity'.

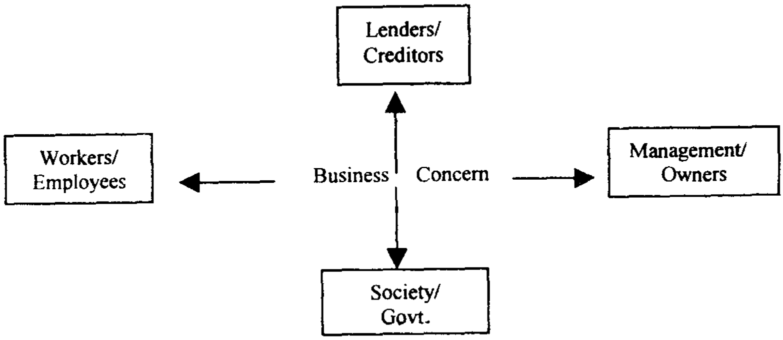


Fig. 1.3 Business Concern Relationship

Workers: Workers/Employees are the backbone of the industry. They are the main contributors to the growth and success of an industry. It is the basic obligation of the company to keep the workers in good humour and harmony. This is achieved only when a company pays fair salary and provides good working conditions with appropriate welfare measures. Otherwise, with the strong union movement, it is highly difficult task for a company to carry out their operations. In the absence of these welfare measures, the union may disturb the normal operations of the enterprise by demanding more wages and other benefits. Hence a company must have a long-term vision of 'building good relationship' with the employees. This would help the company to earn good name in the long run.

Society/Public: A business concern is an important socio-economic organ of a country. Economy permits the business unit to exploit all natural resources available in the country, in exchange of this; society/economy demands welfare facilities to the public. Government expects to increase the standard of living of the people. The earnings of the company must have an obligation to fulfil the basic requirement of the common man. This helps a corporate enterprise to gain good reputation and creditworthiness. Hence it has to care for the society and consumers. Consumers are to be given good quality product with fair prices. It has to care for society by participating directly or indirectly in its social actions namely, sponsoring social programmes, free medical camps, free educational programmes etc. To achieve this a business unit must have to strike a balance between social responsibility and profit maximisation. Although the society's needs are to be taken care of by the company, it cannot forget the welfare of the owners, who are the actual instruments in promoting economic welfare of the society. Relevance of "Wealth Maximisation" to the firm lies in its healthy relationship with the society.

Management: The total success of a business entity mainly depends on the decisions of the management. The contribution of finance manager to this is substantial. He has to make and guide the management in taking 'right decision at the right time'. He has to have maximum control over the movement of funds and deploy the funds in the profitable avenues to reach maximum profits. They have to show their competence in allowing a company to grow in all directions, create confidence in the minds of equity shareholders.

From the foregoing discussion, it may be observed that the wealth maximisation is the ulterior motive of any firm. It cannot ignore the welfare of the organs or associates also collectively contribute to wealth maximisation. Thus wealth maximisation takes place after satisfying these organs (lenders, workers, management and society).

Advantages of Wealth Maximisation

1. Wealth maximisation is a clear term. Here, the present value of cash flows is taken into consideration. The net effect of investment and benefits can measure clearly (quantitatively).

2. It considers the concept of time value of money. The present values of cash inflows and outflows helps the management to achieve the overall objective of a company.

3. The concept of wealth maximisation is universally accepted, because, it takes care of interest of financial institutions, owners, employees and society at large.

4. Wealth maximisation guide the management in framing consistent strong dividend policy, to reach maximum returns to the equity holders.

5. The concept of wealth maximisation considers the impact of risk factor, while calculating the NPV at a particular discount rate, adjustment is being made to cover the risk that is associated with the investments.

Criticisms of Wealth Maximisation

The concept of wealth maximisation is being criticised on the following grounds:

The objective of wealth maximisation is not descriptive. The concept of increasing the wealth of the stock holders differs from one entity to another business entity. It also leads to confusion in, and misinterpretation of financial policy because different yardsticks may be used by different interest in a company. While history indicates that even the earliest businessmen were expected to conform to certain ethical standards of trade, the twentieth century has confronted the businessman with a more demanding socio-economic environment and a less clearly defined set of standard for a social minded conduct of business.

As corporations have grown bigger and more powerful, their influence has became more pervasive; they have created an imbalance which is widely believed to have played an instrumental role in generating a movement to promote more socially conscious business behaviour. Academicians and corporate officers alike have urged the advisability of more socially conscious business management. Financial management will then have to rise equal to the acceptance of social responsibility of business.

I. Other Objectives

1. Balanced Asset Structure: The subject of financial management must have a goal of maintaining balanced asset structure to company. The size of fixed assets are to be decided scientifically. The size of current assets must permit the company to exploit the investments on fixed assets. Therefore balance between fixed assets and current assets have to be maintained.

2. Liquidity: The liquidity objective of a company will exploit the long -term vision of a company. If a firm is 'liquid', it is an indication of positive growth. The application of management of cash flows yielded in increasing the company's capacity to meet short-term as well as long term obligation of the company.

3. Judicious Planning of Funds: The concept of wealth or profit maximisation is achieved only when a company reduces its cost. Cost here not only refers to the overall cost of operations but also the cost of funds. The weighted average cost of different sources of funds must be minimum. With the proper blend of debt to equity mix, short term or current liabilities are to be planned consciously, so that the cost incurred on this should not become a burden to the organisation.

4. Efficiency: "Innovate or Perish" is the slogan of this century. If a company is innovative/efficient, it can be run successfully in its future periods. The threat of competition alarmed the businessman to be made creative and efficient. Hence it is the obligation of a finance manager to be vigilant in increasing the efficiency level of a company.

5. Financial Discipline: As in the recent past, the country has witnessed different types of scandals, corporate financial indiscipline, misuse of funds. Hence it has become an obligatory responsibility of a company to have financial discipline through various techniques of financial management *viz.*, capital budgeting, fund flow and cash flow statement, performance budgeting CVP analysis etc.

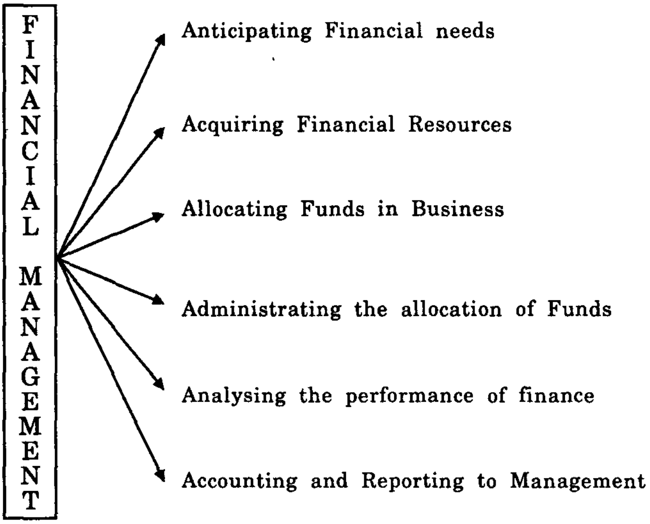


Fig. 1.4 A's of Financial Management

Anticipating Financial Needs: The financial manager has to forecast expected events in business and note their financial implications. He anticipates financial needs by consulting an array of documents such as cash budget, the proforma statement, the proforma balance sheet, the statement of sources and uses of funds etc. Basically financial requirement arises for two main purposes. Firstly, finance is needed to meet the requirement of fixed assets *namely*, purchase of land, building, furniture, fixtures which are necessary to establish a business. Secondly, finance is also required for the purpose of making investment on current assets, *viz.*, raw materials, components, spares and cash to meet the day-to-day expenses. The total requirements for funds can be prepared by collecting the information from all the heads of departments about their needs. This helps in planning for subsequent steps in financial management.

Acquiring Financial Resources: This implies knowing when, where and how to obtain the funds which a business needs. Funds should be acquired well before the need for them is actually felt. The finance manager should know how to tap the different sources of funds. Funds are available through primary market, commercial banks, financial institutions, Non-banking financial corporations, indegenous bankers, etc. Careful selection of the source is another important aspect of financial management.

Allocating Funds in Business: Allocation of finance here refers to investment of finance on the assets, it may be fixed or current assets or both. Scientific allocation is very essential because, each source of fund is directly associated with the cost. It is the basic goal of the financial manager to recover the cost of funds and offer fair percentage of returns to equity shareholders. Capital budgeting, CVP analysis, marginal costing and BEP analysis are used in the process of deciding the pattern of investment for a business unit.

Administering the Allocation of Funds: Once the funds are allocated on various investment opportunities it is the basic responsibility of the finance manager to watch the performance of each rupee that has been invested. He has to adopt close supervision and marketing of flow of funds. This will ensure continuous flow of funds as per the requirements of the organisation. This helps the management to increase efficiency by reducing the cost of operations and earn fair amount of profits out of investments.

Analysing the performance of finance: Once the funds are administered, it is very comfortable for the finance manager to take decisions. Through the budgeting, he will be able to compare the actuals with standards. The returns on the investments must be continuous and consistent. The cost of each financial decision and returns of each investment must be analysed. Wherever the deviations are found, necessary steps of strategies are to be adopted to overcome such events. This helps in achieving 'liquidity' of a business unit.

Accounting and Reporting to Management: Now, the role of the finance manager is changing. The department of finance has gained substantial recognition. He not only acts as line executive but also as staff. He has to advise and supply information about the performance of finance to top management. He is also responsible for maintaining up-to-date records of the performance of financial decisions. If need arises, he has to offer his suggestions to improve the overall functioning of the organisation. The financial manager will have to keep a firm's assets intact, which enable a firm to conduct its business. Asset management has assumed an important role in financial management. It is also necessary for the finance manager to ensure that sufficient funds are available for smooth conduct of the business. In this connection, it may be pointed out that management of funds has both liquidity and profitability aspects. Financial management is concerned with the many responsibilities which are the main thrust of a business enterprise. Although a business failure may not always be the result of financial failures, "financial failures do positively lead to business failures". Hence accounting and reporting of the performance of finance is an important aspect of financial management.

DECISIONS IN FINANCIAL MANAGEMENT

The functions of finance involve three important decisions, *viz.*, investment decisions, financing decisions and dividend decisions. All these decisions directly contribute to the corporate goal of wealth maximisation. The subject financial management guides the management to have optimal mix of these decision. The joint contribution of these decision increases the value of the shares. Let us discuss the above decisions separately.

1. Investment Decisions: Investment decisions is referred to the activity of deciding the pattern of investment. It covers both short-term as well as long-term investment, in other words capital assets and the current assets. It is a long range financial decision and deals with allocation of capital. It has to show how the funds can be invested in assets which would yield maximum return to the business concern. This is a risky decision where the finance manager has to take maximum care in selecting the areas of investment. As the future is uncertain, the returns expected must cover both risks as well as the uncertainties. The viability of each proposal must be examined. Costing technique, capital budgeting, CVP analysis has to be adopted before making a final decision on the investment avenues. The popular technique adopted in the industry to evaluate the proposals are 'capital budgeting' and 'Net present value'. The present economic scenario is pressurising this decision to look more carefully than before. As the competition from multi-national companies are dominating joint venture, mergers and acquisition are taking place, each addition and deletion of products or the asset must significantly contribute to the concept of increasing the wealth of the organisation.

*2. **Financing Decisions:*** It is another important decision where a business concern has to take maximum care in financing different proposals. The appropriate mix of finance with debt to equity directly contributes to the profitability of a business unit. The instrument that are to be selected must aim at maximinising the returns to the investors and to protect the interest of creditors. The role of finance manager in taking decision with regard to combination of the capital structure is vital. He has an alternative of mobilising the funds through *(a)* equity, *(b)* equity plus debt, *(c)* equity plus debt plus preference shares, and *(d)* equity plus debt plus preference shares plus public deposits with term loans. Each opportunity must be evaluated with its benefits. If a company opts only for equity it looses its leverage benefits. If it opts for both debt and equity, proper balance must be maintained between the two to reduce the financial risk. Supposing, a finance manager would like to have more debt and less equity. This may bring in more dividends to share holders and results is increased price of the share in the market and may lead to wealth maximisation. But the cost of borrowed funds may increase the risk of the business concern. Most of the earnings will be used only on the payment of interest on the borrowed funds which is also called as "Financing Risk." Hence he should be intelligent and tackful in deciding the ratio between debt to equity.

In addition to the responsibility of having proper "Financing Mix", he should also provide sufficient scope for gaining additional sources of funds for expansion, diversification etc. This can be achieved through issue of preference shares, public deposits, and raising term loans. Therefore capital structure should not be rigid and it should be flexible.

*3. **Dividend Decisions:*** The ultimate objective of a business concern is to fulfill the desires of equity shares namely *(a)* High Percentage of dividend and *(b)* Maximum returns to share holders in the form of capital gain. In addition to these he has to plan for: *(c)* How much cash dividend should be paid to the share holders ? *(d)* How much profit is to be flown back by capitalisation ? *(e)* Maintenance of stable dividend rate over the period. He should always keep in view the psychology of investors who wish to get a better yield on their investment. Hence sound decision on dividend should be taken. While taking such a decision, the finance manager should also care much for 'retained earnings', which will act as solid component of equity capital. The dividend pay out ratio must be evaluated in the light of the objective of maximising share holders' wealth. Thus the dividend decision has become a vital aspect of financing decision.

4. Current Asset Management: The finance manager should also manage the current assets to have liquidity in the business. Involvement of funds in current assets reduces the profitability of the firm which means the reduction in dividend. But the finance manager should also equally look after the current financial needs of the firm to maintain optimum production, through which he must achieve efficiency and increase the operating cycle to meet the short term obligations. Hence it is also termed as 'Working Capital Management'. It keeps business operations going with the proper management of cash, accounts receivables and inventory.

Organisation of the Finance Function

The organisation structure of finance is as important as any other functional - department. Experts feel that finance department has more significance than the other functional departments. It is established directly under the control of board of directors. The structure and the size of the finance department differs from one industry to another industry. If the size of the industry is small, owners themselves will have the responsibilities of finance function. If the size of the organisation is big, an independent finance department will be established. It may be in the form of centralised or de-centralised authority. If the size of the organisation is very large, an expert committee will assist the board in all the financial matters. The finance function is controlled by the top management, because the survival and growth of the firm mainly depends upon the sound financial decisions taken by the firm. These are general issues and hence are vested with the top brass. Moreover the top management will be in a position to co-ordinate the financial activities with other functional areas. Fund flow will be-smooth because of the sound working of finance functions. This helps in maintaining 'solvency' of the firm. Several economies of large scale operations can be achieved through this finance department.

The finance function, although, is controlled by the top management. There will be a separate expert team to look after these activities and this function will be sub-divided according to the needs. A common structure of the finance department cannot be evolved, as the size of the firm and nature of the business vary from firm to firm. However, a general organisational structure can be thought of.

The finance function can be broadly divided into two parts:

(1) Routine matters or day-to-day financial transactions like custody of cash and bank accounts, collection of loans, payments of cash for transactions etc.

(2) Special financial functions like :

(a) Financial planning and budgeting.

(b) Profit analysis.

(c) Investment decisions.

(d) Financial accounting.

(e) Cost accounting.

(f) Internal audits.

The above two functions are looked after by 'Treasurer' and the 'Controller'. Routine matters are looked after by the Treasurer and special matters are managed by the Controller of Finance. These two executives are governed by a special committee called Finance Committee. The organisation chart will explain the structure of finance department.

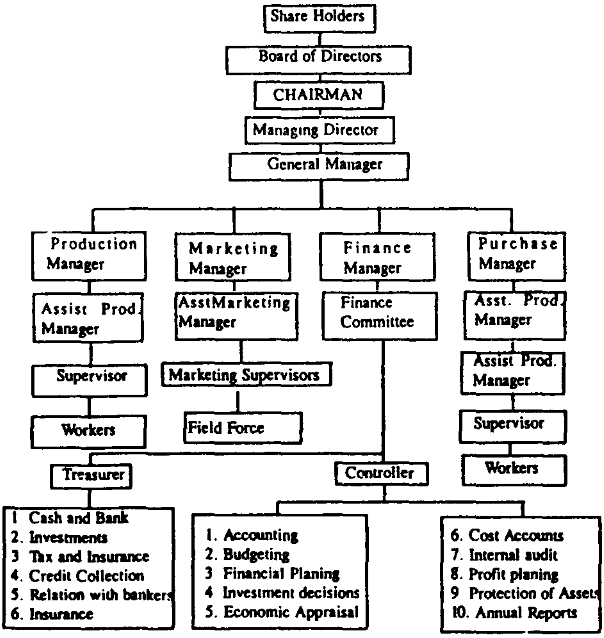


Fig. 1.5 Organisation Chart of Finance Department

The along side chart is not rigid and can be altered according to the needs of the individual organisation. The designation used need not be identified as 'managers'. The recent trends call for usage of designation as 'Directors', 'President', or 'Vice-President' finance. The usage of 'controller' and the 'treasurer' designations are very popular in USA. But in the Indian context, the position is slightly different.

The role of Treasurer is routine and repetitive in nature. He takes care of opening bank accounts, depositing cash and maintaining day-to-day financial matters. The opportunities for investments are to be explored by the treasurer. Periodical tax administration and insurance related issues are attended by the treasurer.

The responsibility of credit collection, preparation of aging schedule, follow-up of collection and maintaining the inflow of cash will be looked after by the treasurer. Treasurer is also responsible for maintaining good relationship with the banker and financial institutions. He has to fulfil the requirements of periodical payment of interest and the principal. He is also responsible for submitting regular inventory statements, cash and fund flow statements to the banker as per the terms and conditions of the loan agreements.

The role of controller is entirely different, he is more responsible than the treasurer. He is in-charge of planning, developing strategies and guiding the management in all financial decisions. Preparations of financial planning, planning for investments, economic appraisal, cost reduction strategies, protection of assets and preparation of annual report and other important issues are looked after by the controller. He has a role of 'Staff' towards the top management. To conclude both are responsible for smooth running of the organisation and in achieving wealth maximisation.

Finance Manager

Finance manager is a person who heads the department of finance. He performs important activities in connection with each of the general functions of management. He groups activities in such a way that areas of responsibility and accountability are clearly defined. His focus is on profitability of the firm. The profit centre is a technique by which activities are decentralised for the development of strategic control points. The determination of the nature and extent of staffing is aided by financial budget programme. Planning involves heavy reliance on financial tools and analysis. Control requires the use of the techniques of financial ratios and standards. Briefly, an informed and enlightened use of financial information is necessary for the purpose of co-ordinating the activities of an enterprise. Every business, irrespective of its size, should, therefore, have a financial manager who has to take key decisions on the allocation and use of money by various departments. Specifically, the finance manager should anticipate financial needs; acquire financial resources and allocate funds to various departments of the business. If the financial manager handles each of these tasks well, his firm is on the road to good financial health. Since the financial manager is an integral part of the top management, he should shape his decisions and recommendations to contribute to the over all progress of the business. It is his primary objective; to maximise the value of the firm to its stock holders.

Functions of Finance Manager

The following are some of the important functions of the finance manager :

1. He should anticipate and estimate the total financial requirements of the firm. (Preparing a sound financial plan.)
2. He has to select the right sources of funds at right time and at right cost. (Balancing the own capital (equity) and borrowed capital (debt) for the best advantage of the firm.)
3. He has to allocate the available funds in the profitable avenues. (Judicious fund allocation.)
4. He has,to maintain liquidity position of the firm at the peak. (Synchronising the finance inflow and outflow for better liquidity.)

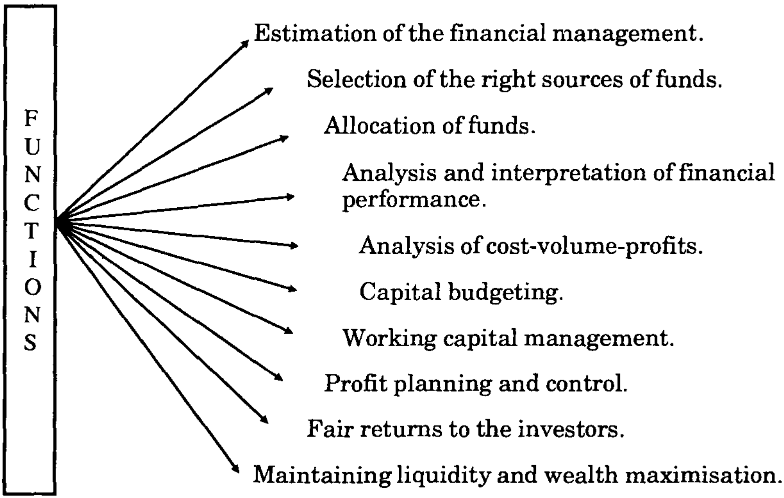


Fig. 1.6 Functional areas of Financial Management

5. He should analyse financial performance and plan for its growth. (Continuous financial appraisal activity.)
6. He has to administrate the activities of working capital management.
7. He has to protect the interest of creditors, shareholders and the employees.
8. He has to concentrate more on fulfilling the social obligation of a business unit.

1. Estimation of the Financial Requirements : The requirement of finance to a business concern is continuous. It is needed in all the stages of business cycle namely, initial, growth, saturation and declining stage. Funds are needed to establish the industry both for meeting capital expenditure and revenue expenditure. Total estimation of funds for these assets are the first assignment of the subject of financial management. Funds are also needed at the growth stage for expansion and to increase the production to meet the demand of consumers. The requirement of finance arises even at the stage of saturation. It is needed for diversifying the product; so that, a firm can continuously stay on in the saturation stage. If the firm became sick, to rejuvenate the activities of such business concern by rescheduling, repackage of financial services are needed. Hence it is the first task of finance manager.

2. Selection of the Right Sources of Funds: After estimating the total funds of business concern, it is the second important step of the finance manager to select the right type of sources of funds at the right time at right cost. Each financial instrument is associated with different types of costs. Equity has the cost of dividend or expectation of the share holders, debenture or borrowings has the cost of interest, preference share has the cost of dividend. Careful selection has to be made out of the available alternative sources of funds.

3. Allocation of Funds: After mobilising the total funds of a firm, it is the responsibility of finance manager to distribute the funds to capital expenditure and revenue expenditure. The evaluation of different proposals of project must be made before making a final decision on investment. Each investment must yield fair amount of returns, so that it should contribute to the goal of 'Wealth Maximisation'.

4. Analysis and Interpretation of Financial Performance: It is another important task of finance manager. He is expected to watch the performance of each portfolios, that can be measured in terms of profitability and returns on the investments. Ratio analysis and comparison of actuals with standard helps the finance manager to have maximum control over the entire operations of the business unit.

*5. **Analysis of Cost-Volume-Profit:*** It is another important tool of the financial management, that helps the management to evaluate different proposals of investments. Make or buy decision, deletion and continuation of a product line decision can be made by adopting CVP/BEP analysis. This helps the management to achieve long term objective of a firm.

*6. **Capital Budgeting:*** It is a technique through which a finance manager evaluates the investment proposals. In how many years the original investment can be recovered ? At what percentage of returns a business should run ? These are the issues that are handled by him. Pay back period, ARR, IRR, NPV are some of the modern techniques that are very popular in capital budgeting. These techniques are adopted by finance manager according to the need and situation to attain financial objectives of the enterprise.

*7. **Working Capital Management :*** Working capital is rightly an adjunct of fixed capital investment. It is a financial lubricant which keeps business operations going. It is the life blood of a firm. Cash, accounts receivables (debtors) and inventory are the components of working capital. They rotate in a sequence (cash to stock to sale to cash or accounts receivable). Cash is the central reservoir of a firm and ensures liquidity. Accounts receivables and inventory form the principal utility of production and sales; they also represents liquid funds in the ultimate analysis. The finance manager should weigh the advantage of customer trade credit, such as increase in volume of sales, against limitations of costs and risks involved therein. He should match the inventory level to sales and reduces the stay of inventory during the production process. This not only reduces the cost but also ensures timely production. This helps the management to meet the demand of the market on time. Timely supply of goods ensures good name and reputation to the firm. Even a small lapse on the part of maintaining working capital results in "liquidity" and failure of business.

*8. **Profit Planning and Control :*** Profit planning and control is yet another important function of financial management. Profit planning guides the management in attaining the corporate goals. Profit is surplus of income over the expenditure. It may be earned through sales, or through operating revenue or by reducing the cost of operations. Cost reduction technique adopted by a firm directly contributes the size of the profit. It is the only measure through which company's prosperity is known to the investors, assures an increasing percentage of dividend and renew the confidence of the investors in future activities. Now the competition in business is severe. Hence the profit through increased sales and reducing of costs are the basic objective of the corporation. Break-even analysis and CVP analysis are the important tools of financial management, adopted to measure the level of profit earned by the company.

9. Fair Returns to the Investors : Returns are the divisible profits available to the investors. Equity holders normally expects fair amount of profit and capital appreciation for their investment. Unless and until this is fulfilled by a company, the confidence of the investors will be at stake. It is also a social and economic obligation on the part of the company to protect the interest of the investors. This encourages the public to increase their savings to invest the same on securities. In the long run it helps the nation to build strong capital formation and increases industrial activities. It also contributes to the growing economic activities. Hence a business firm must assure regular income to the shareholders.

10. Maintaining Liquidity and Wealth Maximisation : This is considered to be the prime objective of a business firm. Liquidity of a firm increases the borrowing capacity. Expansion and diversification activities can be comfortably executed. Increased liquidity builds the firm's ability to meet short term obligation, towards creditors or bankers. Once the flow of funds is assured continuously, flexibility in the planning for investments can be introduced, in turn the overall profitability of the firm can be maximised. This helps the firm to meet all types of obligation to the target group like investors, creditors, employees, management, government and society. Thus "Wealth Maximisation" takes place in the form of growth of capital over the years.

POINTS TO REMEMBER

- *Financial institutions, instruments and markets are the important components of financial system.*
- *Financial management gained significance in the modern business.*
- *Earlier financial management was mainly concerned with mobilisation of funds.*
- *Experts, academicians contributed greatly to the growth of this subject by developing theories and techniques in financial management.*
- *Evolution of a clear definition of financial management: a financial management in the operational activity of a business that is responsible for obtaining and effectively utilising the funds necessary for efficient operations.*

GOALS OF FINANCIAL MANAGEMENT

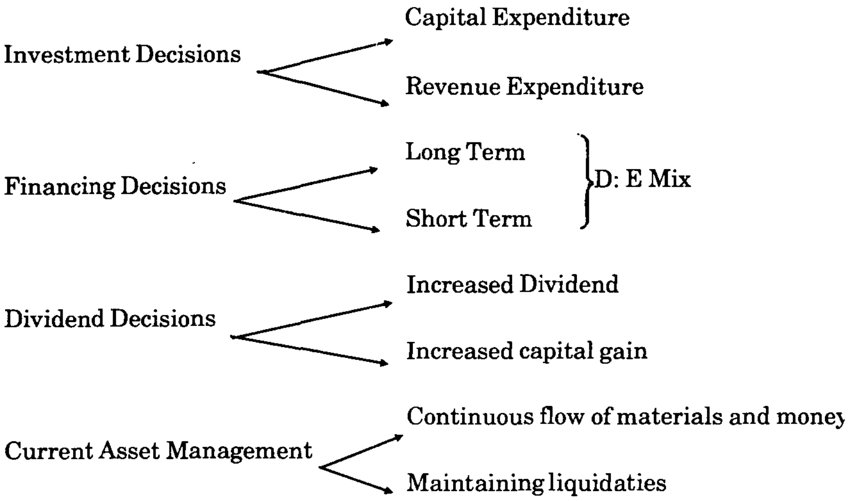
Specific Objectives

- *(a)* Profit Maximisation – More profits.
- *(b)* Wealth maximisation – Increasing wealth of investors

Other Objectives

- *(a)* Balanced asset structure.
- *(b)* Liquidity.
- *(c)* Judicious planning of funds.
- *(d)* Efficiency.
- *(e)* Financial discipline.

Decisions in Financial Management



A's of Financial Management

Anticipating Financial needs.
Acquiring Financial Resources.
Allocating Funds in Business.
Administrating the Allocation of Funds.
Analysing the Performance of Finance.
Accounting and Reporting to the Management.

Organisation of the Finance Function

Not much importance to the finance function in the early days.
Gained significance in later stage.
Adopted the model of USA to structure financial department.
Finance manager's dual role of line and staff.
Identification of two subordinators, *viz.*, Treasurer and the Controller.

Treasurer

- *(a)* Cash and bank accounts.
- *(b)* Investments opportunities.
- *(c)* Tax and insurance.

- (d) Credit collection.
- (e) Relation with Banks, IFIs.

Controller

- (a) Accounting.
- (b) Budgeting.
- (c) Financial planning.
- (d) Investment decisions.
- (e) Economic appraisal.
- (f) Cost accounting.
- (g) Internal audit.
- (h) Profit planning.
- (i) Protection of Assets.
- (j) Annual reports.

Functions of the Finance Manager

1. He should anticipate the finance requirement.
2. Selection of right source, at right time and at right cost.
3. Allocation of funds.
4. Analysis of the financial performance.
5. Administrates the financial activities.
6. Protection of interest of investors and creditors.

Functional areas of Financial Management

Estimating the financial requirement.
Selection of the source of funds.
Allocation of funds.
Analysis and interpretation of the results.
Usage of CVP and BEP techniques.
Capital budgeting.
Working capital management.
Profit planning and control.
Fair returns to the investors.
Maintaining liquidity and wealth maximisation.

Question Bank

Section A *(2 marks)*

1. What is finance management ?
2. What do you mean by profit maximisation?
3. What is wealth maximisation ?
4. What is investment decision ?
5. What is dividend decision ? ***(B.U. Apr. '99)***
6. What is financing decision?
7. What do you understand by finance function ?
8. What is meant by financing mix?
9. What is meant by financial risk?
10. Give the meaning of the term business finance.
11. Mention any four functions of finance manager.

12. Mention any four objectives of financial management.
13. State the duties of controller.
14. State the duties of treasurer.
15. Mention any four functions of financial management.

Section B *(8 marks)*

1. Briefly analyse the scope of financial management.
2. Explain "Profit maximisation."
3. Explain "Wealth maximisation."
4. Write a note on Investment.
5. Write a note on Dividend Decision.
6. Give organisation of finance function.
7. Give a brief note on the role of financial manager.
8. Analyse the functions of finance controller.
9. Give an analytical note on the functions of treasurer.
10. Analyse the different A's of financial management.

Section - C *(15 marks)*

1. Explain the functions of financial management.
2. Explain the role of financial manager.
3. Explain the duties of treasurer and the controller.
4. Explain the objectives of financial management.
5. Explain the meaning, scope and importance of financial management.

2

FINANCIAL PLAN

Financial Plan - Steps in Formulating Financial Plan - Long Term and Short Term Financial Plan Factor to be considered in Financial Planning

FINANCIAL PLAN

One of the most important functions of the financial manager is that of financial planning. Planning business finance and carrying out financial plans is a continuous process in the day-to-day administration of a business. Financial planning is essentially concerned with the economical procurement and profitable use of funds.

According to *G.D. Bond* – "whilst making profit is the mark of corporation success, money is the energizer which makes it possible. The aim in financial planning should be to match the needs of the company with those of the investors with a sensible gearing of short-term and long-term fixed interest securities."

Earnest. W. Walker and William H. Banglin state in view of the complex nature of the business enterprise today, management places a great emphasis upon financial planning. The primary advantage accrued to financial planning is the elimination of waste resulting from complexity of operation. For example, technological advancements, higher taxes, increasing cost of social obligation, fluctuations in the interest rates, and pressures resulting from increasing competition tend to cause management to exert wasteful effort. Financial planning helps management to avoid waste by providing policies and procedures which facilitates closer co-ordination between various features of business enterprises.

> "The financial plan of a Corporation has two-fold aspect; it refers not to the capital structure of the corporation, but also to the financial policies which the Corporation has adopted or intends to adopt" — *J.H. Bouneivlle.*

"Finance planning pertains only to the function of finance and includes the determination of the firm's financial objectives formulating and promulgating financial policies and developing procedures" — *Walker and Bough.*

Financial plan is a blue print through which a company estimates the total funds requirements. It may be for short term or long-term.

Long-term financial requirement arises to establish the business concern. Short-term financial requirement arises for the purpose of continuing business operations. Careful planning for funds guides the company to move in a positive direction and it helps in achieving the goals of a corporation.

As a derivative gist of Cohen's and Robin's expression, Financial plan should contain the following:

(a) Determination of Financial Resources.
(b) Generation of Funds from Internal and External Sources.
(c) Control upon Allocation and Use of Funds.
(d) Most effective Profit-volume-cost Analysis.
(e) Financial Operations results Analysis.

The financial plan of a business corporation should be formulated in the light of not only the present but also of future development as well. It should take into account the present capital needs and requirement of investors and it should anticipate possibilities of later expansion, combination with other corporations, higher or lower future interest rates etc. All of these considerations resolve themselves into a determination of:

— The amount of capital to be raised;
— The form and proportionate amount of securities to be issued;
— Polices bearing on the administration of capital.

Planning for finance is a continuous functions. The need for Finance arises in all the phases of business cycle of a corporation. Let us examine the requirement of finance in each of the phases of business cycle.

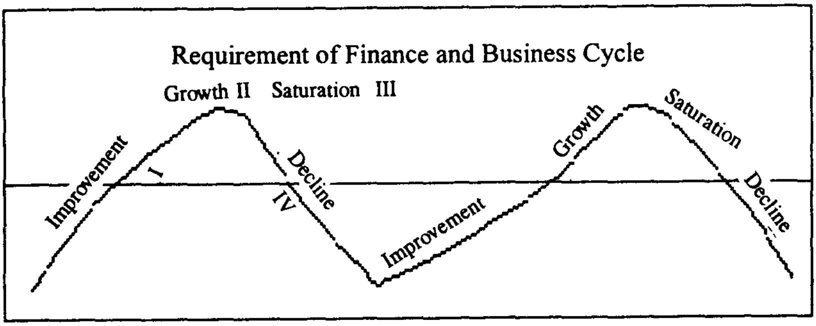


Fig. 2.1 Business Cycle

Improvement Stage: The requirement of finance for the business firm arises to establish the industrial/business unit. Capital expenditure and revenue expenditure are to be estimated. Capital expenditure financial requirements are raised through long-term funds. This facilitates the firm to build fixed assets namely, land, building, furniture, plant and machinery etc., as the benefit of these expenditure cannot be gained immediately, careful planning has to be made in selecting the right source, it is through long-term sources namely issue of equity, debentures and term loans.

Growth Stage: As the business for the products are increasing, favourable response is being received by the company. Good demand for the products warrants increased production. At this stage, management wants to exploit the market potentialities, plans to expand business and production to meet the increased demand in the market. Hence finance is needed to expand business, to open branches in other places or to introduce new technology etc. Careful selection of the financial instrument is to be made by the finance manager. Unless and until the arrangement of finance is made at this stage, it is very difficult for a firm to exploit the opportunities that are existing in the market.

Saturation: Though, a firm enjoys highest reputation, good demand for the products at this stage, finance is needed for product diversification. If a particular product line faces tough competition because of its 'position' in the market, it is the normal strategy of a business firm to add one more product to the existing product. Hence new product launching, investment on research and development is warranted. Now it is the role of finance manager to assess and forecast the size of finance and select the right source to mobilise the funds.

Decline: If a firm looses its demand for products, or it becomes sick due to severe competition, the requirement of finance arises. It is needed to rejuvenate the industry, and to remove the bottlenecks of sickness of the industry. Hence finance is needed in the form of subsidy, concessions, tax holiday, repackaging the schedule of firm loans, soft loans etc. The vital task of financial manager and top management is to plan for financing for simplification of product or diversifying or repositioning it.

Formulating such a plan involves the decision as to the proportion of each type of securities in the capital structure. Debentures have the cost of interest and preference has the cost of dividend. Decisions on these matters will depend on wide knowledge of the industry in which the prospective company is to operate. As the financial plan would continue to operate even after promotion, it is necessary that the original plan considers the long-term needs of company. While obtaining the original capital of the company, long-term needs are to be stressed upon instead of early methods.

Financial planning, therefore includes (1) Estimating the amount of capital to be raised, (2) Determining the form and proportionate amount of securities and (3) Laying down the policies as to the administration of financial plan.

Financial planing is needed

1. To establish a business unit.
2. To meet the requirement of capital expenditure.
3. To meet the requirement of revenue expenditure.
4. To have continuous production.
5. To economise the large scale operations.
6. To maintain liquidity of the corporation.
7. To indicate the surplus funds.
8. To plan for expansion and diversification.
9. To avoid production delays.
10. To meet the demand in the market.
11. To protect the interest of creditors, employees, owners and the society.
12. To increase efficiency.
13. To have optimal capital structure.
14. To maintain proper co-ordination between the financial managers.

Characteristics of a Financial Plan

1. Simplicity: The financial plan must be as simple as possible, in other words, it should be understandable to all. The financial plan should envisage a simple financial structure capable of being managed easily. The types of securities should be minimum, more number of securities often creates confusion in the minds of the investor, creditors and government. Henry Hoayland is of the view that a financial plan should be drafted in terms of the purpose for which the enterprise is organised. No corporation, however, liberal its charter, should "shoot at the horizon. It should be free from complexity."

2. Objective Oriented: Financial plan should be prepared by keeping the firm's objective in mind. It should facilitate the corporation to achieve its goals. It may be profit or wealth maximisation. The procurement and deployment of funds must have direct aim of reaching the goals with minimum cost.

3. Intensive Use: A wasteful use of capital is as bad as inadequate capital. A financial plan should be such that it will provide for an intensive use of funds. Funds should not remains idle, because each source of funds is directly associated with its cost. Hence optimal utilisation of funds is necessary. A proper balance between long-term and short-term funds have to be maintained since the surplus of one would not be able to offset the shortage of the other.

4. Contingency: A good financial plan must supply sufficient funds to meet uncertainties and anticipated contingencies. Uncertainties and changes are bound to occur in all the phases of business cycle. Contingency planning or strategy for financial mobility should be brought in to the open for careful review. It is a policy or a strategy which a firm adopts in situations of adversity. By proper planning number of business problems can be minimised. The essential features of such a plan are:

(i) Estimate the financial uncertainties.

(ii) Indicate the measures to be taken, by whom, when, in what sequence and with what priority.

(iii) Apply the principle of sensitivity analysis to meet the crisis.

(iv) Study the past events and solutions.

(v) Take immediate action to minimise the risk.
The action may be:

  (a) *Time related action:* It arranges cash inflows and delays cash outflows.

(b) *Volume related action:* It makes for the flexibility of operations so that they may be increased or decreased as and when necessary.

(c) *Scale-related action:* This action enables a firm to change or modify the extent of its commitment to a specific course of action.

(vi) To maintain financial resources which can be immediately utilised.

5. Comparison: The performance of financial activities must be expressed in terms of standards or quantifiable measures. This facilitates comparison of actuals worth with standards and current performance with historical and future events.

6. Uniformity: The financial plan must be prepared by maintaining the uniformity. Sub-plans must have proper co-ordination to he main plans. Unified techniques are to be adopted in estimating the financial requirements.

7. Foresight: The finance manager must have proper 'vision' about the firm's future goals and objectives. He has not only to meet the current financial needs but also make sufficient provision for future requirements.

In a practical situation, it is a difficult task, as it requires an accurate forecast of the future scale of operations of the company. Technological improvements, demand forecast resource availability and other secular changes should be kept in mind while drafting the financial plan. A plan visualized without foresight may bring problems to the company.

8. Optimum use: The requirement of finance must be met with proper supply of funds. A plan should aim at supplying the funds adequately. It should not have either excess or inadequacy in the supply of finance. Both the situations are dangerous to the company. A proper balance of long-term and short-term finance provides an opportunity for financial manager to use the funds to increase the profits.

9. Liquidity: Liquidity means that a reasonable amount of current assets must be kept in the form of liquid cash so that business operations may be carried on smoothly without the shocks of shortage of funds. A plant must provide the opportunity to the company to meet its short term obligation. It could act as a shock absorber in the event of business operations deviating from normal course. This will help in avoiding embarrassment to management and loss of goodwill of the company in public.

10. Flexibility: The financial plan should be such that it can be made flexible, so that the changes can be accommodated when ever it is needed. As the business operations are to be carried on in the changing environment, fixed capital structure makes the organisation financially rigid. Hence, flexible capital structure may be maintained. Firms which fails to provide flexibility often find that their share of the market has diminished and instead of increasing their return, they find that they have become marginal firms and are experiencing financial difficulty.

11. Economy: The cost of raising the required capital should be the minimum. It should not become a burden to the organisation. This can be achieved by proper debts–equity mix. As the different securities have different types of cost, it is the practice of all the financial managers to maintain minimum weighted average cost.

12. Profitability: A financial plan should maintain the required proportion between fixed charges, obligations and the liabilities in such a manner that the profitability of the organisation is not adversely affected. Therefore, the financial plan must be capable of earning the cash flows, throgh which it can meet its cost of capital, cost of operations and other miscellaneous expenditure.

13. Practicability: A financial plan that is prepared should be practicable. It should serve the practical purpose of a firm. It should be realistic and capable of being put to intensive use. But a proper balance between fixed and working capital should be maintained.

14. Availability: The sources of finance indicated in the financial plan must be available at a given point of time. Many at times, due to the lack of availability of right sources of funds, the plan prepared earlier has to be re-drafted according to the changing situation, irrespective of its associated costs.

15. Control: The capital structure of a firm should be decided in such a manner so that, the privilege of investors is protected. It should not dilute the ownership of equity share holders. Debt financing may come as a handy tool in achieving this objective.

16. Economic Conditions: A financial plan prepared by the management will always have a focus on certain economic indicators, like inflation rate, interest rate, credit squeeze, growth rate, exchange risk, withdrawal of subsidies etc., which may be shifted form time to time. These assumptions may change. But sufficient provision must be made to absorb these changes in the financial plan.

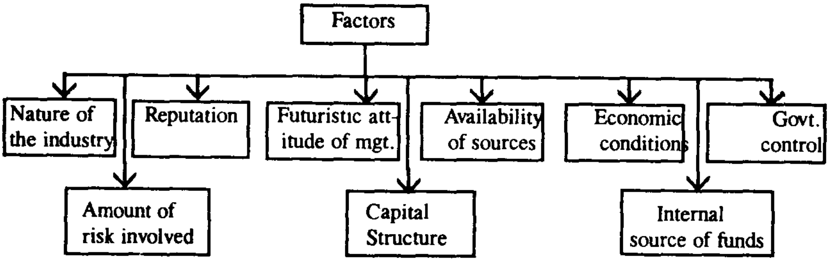


Fig. 2.2 Factors to be considered in the preparation of Financial Plan

1. ***Nature of Industry:*** The nature and size of the industry directly influence the financial planning. Larger the size of the industry. Larger will be the requirement for funds. Capital intensive and labour intensive industries ask for more amount of capital vice versa. Newly established industrial units require more amount of capial than the existing business units.

2. ***Reputation:*** Goodwill or the reputation enjoyed by the firm will also influence the financial planning. Higher the reputation, lesser will be the risk in framing the financial plan and this helps the finance manager to frame the policies quickly.

3. ***Futuristic Attitude of the Management:*** If the management of a business unit is aggressive and plans to expand its production to increase the market share, more will be the requirement for funds. Flexibility should be made available in the capital strucutre, so that additional funds can be raised easily.

4. ***Availability of Sources:*** Funds are available from different sources namely, capital markets, commercial banks, financial institutions and through non-banking financial companies. The sources should be able to provide sufficient regular funds to meet at different periods. Hence financial manager has to take all these factors in to consideration at the time of framing the financial plan.

5. ***Economic Condition:*** The economic situation like inflation, deflation, recession and boom are the some of the economic behaviours directly influenced the financial plan. Government policy towards lending is also to be considered by the financial manager, in framing financial policies.

6. ***Government Control:*** SEBI guidelines with regard to equity issues, debentures, declaration of dividend, rights issue *etc.*, will influence the financial plan. Monetary and fiscal policies of the

government have to be kept in mind in selecting a suitable financial plan.

*7. **Amount of Risk Involved:*** The financial plan is also affected by the risk that is associated with the firm. If a business-firm operates with greater risks, it has to have considerable long-term funds. It strains the financial manager to mobilise the funds. Lesser risk oriented firms will have easy accessibility to funds and reduce the strain of financial manager.

*8. **Capital Structure:*** The decision on the capital structure is to be made carefully. The mix of securities in the capital structure provides trading on equity. Sufficient provision is to be made for issuing additional securities to raise funds for future expansion. Hence, capital structure will also directly influence the financial plan.

*9. **Internal Source of Funds:*** An efficient financial plan must always aim at reducing the dependence on outsiders' funds. This can be achieved by maintaining sufficient provision for reserves and surplus or ploughing back of profit. Hence the percentage of dividend and apportionment of surplus profits will also influence the financial plan.

STEPS IN FINANCIAL PLAN

According to Earnest W. Walker and William H. Baughn, there are four steps in financial planning:

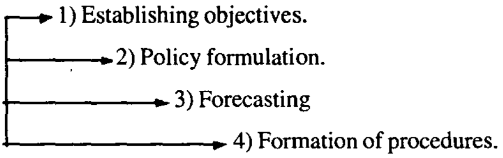


Fig. 2.3 Steps in Financial Planning

*1. **Establishing Objectives:*** The financial plan must have clear objective. It may be short-term or long-term. The main purpose of a financial plan is to raise the optimum use of funds as per the requirements of the goals. The financial objective of any business enterprise is to employ the capital in whatever proportion necessary to increase the productivity of remaining factors of production over the long run.

*2. **Policy Formulation:*** It deals with procurement and distribution of funds. Funds mobilised must be administered properly to have maximum benefits. The policies that are prepared by the finance manager cover both the needs of current as will as future period. They may be classified into several categories:

(i) Policies governing the amount of capital required for firms to achieve their financial objectives.

(ii) Policies which determine the control by the parties who furnish the capital.

(iii) Policies which act as a guide in the use of debt or equity capital.

(iv) Policies which guide management in the selection of sources of funds.

(v) Policies which govern credit and collection activities of an enterprise.

3. Forecasting: A fundamental requisite of financial planning is the collection of "facts"; however, where financial plans concern financed the future, "facts" are not available. Therefore the planner has to forecast the requirement of finance. If forecasting is to be done under complicated economic environment, consultants or merchant banker's services can be utilised.

4. Formulation of Procedures: Financial policies are the broad guidelines which, are to be executed properly, and must be translated into detailed procedures. The procedures so framed must be implemented in practical life of the business. If the policies are framed to raise equity capital. Each procedure to be followed must be carefully designed.

LONG-TERM FINANCIAL PLAN

Long-term financial plan refers to a 'blue print' prepared by the finance manager to meet the capital expenditure requirement. Capital expenditure is needed to establish the industry. Asset structure is the base through which financial position of the company is reflected. The capital/fixed assets are those assets which are purchased once in a life time of the business and can be used for more number of years. The benefit of such expenditure which is termed as 'investment' can be gained over a period of time. The size of funds required to meet this investment is fairly large. Hence long-term financial plan must be prepared by using different techniques of financial management.

The capital expenditure requirement will be met by raising long-term funds namely, equities, debentures, preference shares, public deposits and term loans.

If the finance manager decides to raise more number of securities to build the asset structure, he has to consider the merits and demerits of each instrument study the economic situations, follow the regulations of the statutory bodies and analyse the feasibility of procurement of funds. The 'factors' that are explained in the beginning of this chapter will directly influence this plan. The ultimate aim of the finance manager in long-term financial planning is to have, minimum cost and maximum profits. In other words the weighted average cost of capital structure must be least and it should contribute directly to the concept of wealth maximisation. Capital budgeting is the technique that is popularly used to solve the problems of long-term financial plan.

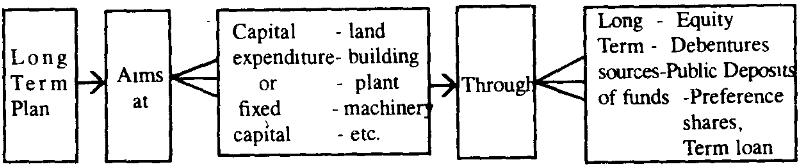


Fig. 2.4 Long-term Financial Plan Function

Fixed asset requirements, and capital expenditure requirement decisions are influenced by number of internal and external factors.

I. Internal Factors

(a) Nature of the business.
(b) Size of the organisation.
(c) Policy of the management.
(d) Technology adopted.
(e) Type of machineries required.
(f) Size, shape and price of product.

II. External Factors

(a) Tastes and fashions of the consumers.
(b) Existing competition.
(c) Risk and uncertainties.
(d) Attitude of the government towards industrial growth.
(e) Monetary and fiscal policy of the government.
(f) Attitude of the investors towards primary and secondary market.

To conclude, long-term financial plan is one of the important prime functions of the financial management. It has to be prepared scientifically by considering and evaluating number of factors. This facilitates the management of a business unit to attain the goals smoothly.

SHORT-TERM FINANCIAL PLAN

It refers to a 'blue print' of finance prepared to meet the short-term financial requirements of a business unit. Funds are not only needed to establish and start the industry, it is required to lubricate wheels of the machineries to have continuous production and sales. Unless and until short-term funds are provided, 'exploitation of fixed assets is impossible'.

Short-terms funds, in other words, working capital increases the liquidity position of a business unit. It helps the firm in meeting day-to-day exenses and facilitates in meeting the obligation of creditors (bankers and the financial institutions) and creates comfortable environment to reach the goals without much hurdles.

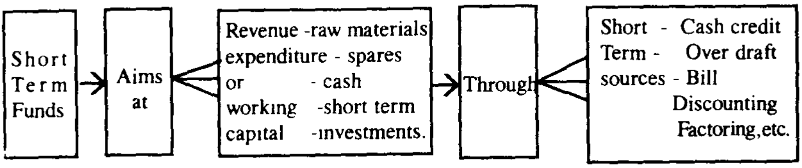


Fig. 2.5 Short-term Financial Plan

The requirement of short-term funds are arranged both form long term as well as short term courses. The permanent working capital is mobilised and deployed through equity and debentures. The variable working capital is arranged through commercial bankers, financial institutions and non-banking financial companies. During emergencies inter-corporate borrowings and borrowings through indigenous sources is availed of. As the long term financial plans are influenced by a number of factors, short term financial plans are borrowings also prepared by considering a number of determinants *viz.*, internal sources of funds, purchase and sales policy of the firm, type of raw materials, its availability, scale of operation, operating cycle, reputation enjoyed, availability of funds from banks and financial institutions. Hence the role of financial manager in very vital in taking final decision in the matter. The details of this discussion you can find in the separate chapter entitled "Working Capital Management."

FINANCIAL PLANNING

	Merits		*Demerits*
1.	Helps the top management in framing the policies.	1.	Difficult to predict exact happening.
2.	Helps in setting the goals.	2.	Difficult to gain co-operation from other departments.
3.	Co-ordinates the activities of other departments.	3.	Rigid financial plans becomes a hurdle to the firm's prosperity.
4.	Reduces the cost of capital and cost of operations.	4.	Difficult to prepare a framework under changing socio-economic conditions.
5.	Facilitates in smoothening the business.	5.	Planner's bias.
6.	Helps in measuring the success.	6.	Complex financial plans.
7.	Helps in building asset structure.	7.	Requires frequent changes and modifications.
8.	Helps in expansion and diversification.		
9.	Increases the profitability.		
10.	Helps in achieving wealth maximisation.		

A financial plan prepared scientifically helps the top management to frame the policies of the organisation with more comforts. It also facilitates them to prepare policies for other activities. Setting of goals for the entire organisation as well as the goals of the individual departments made easy. It co-ordinates the activities of production, purchase, sales and other departments. Good financial plan results in best results with minimum cost of funds and cost operations. Allocation of funds to capital expenditure and revenue expenditure can be made easily. When the firm operates its business in growth and property stage, it acts as a tool through which a corporate "Vision" can be installed. To conclude, in the long run, financial plan assist the management in reaching its goals of wealth maximisation.

Though financial plan offers many advantages it suffers from several defects. The plan prepared under changing conditions may not yield expected results. It is also a difficult task for the financial manager to predict the changes and forecast accordingly. Any small mistake committed by finance man will take the company to a disastrous situation. Now the preferences of investors and taste and fashions of consumers are fast changing. Innovating a financial plan that suits investors and consumers is a very difficult task. Hence it is to be modified every now and then, this irritates other functional managers and they may not extend their co-operation to finance manager. However, the co-ordination is a must between functional managers for the successful implementation of the financial plan.

In the light of the above discussion, we can conclude that, financial planning is one of the most important vital function of the finance manager, without which taking or implementing the overall plans of the organisation becomes difficult.

POINTS TO REMEMBER

Financial plan is a 'blue print' through which a company estimates its requirements of finance.

Finance is needed in all the phases/stages of business cycle, improvement, growth, saturation and decline.

Financial Plan Includes

(a) Amount of Capital.
(b) Type of securities.
(c) Financial policies of the management.

Need for Financial Plans

(a) To meet the requirement of capital.
(b) To meet the requirement of capital expenditure.
(c) To meet the requirement of revenue expenditure.
(d) To have continuous production.
(e) To economise the large scale operation.
(f) To maintain liquidity.
(g) To plan for expansion and diversification.

Characteristic Feature of a Financial Plan:

(a) Simplicity.
(b) Objectivity.
(c) Intensive Use.
(d) Contingency.
(e) Comparison.
(f) Uniformity.
(g) Foresight.
(h) Optimum use.
(i) Flexibility.
(j) Economy.
(k) Profitability.
(l) Practibility.
(m) Availability.
(n) Control.
(o) Economic Condition.

Factors influencing the Financial Plan:

(a) Nature of the industry.
(b) Reputation.
(c) Futuristic attitude of the management.
(d) Availability of sources.
(e) Economic Conditions.
(f) Government Control.

- *(g)* Risk involved.
- *(h)* Capital Structure.
- *(i)* Internal source of funds.

Long-Term and Short-Term Financial Plans

Merits	*Demerits*
(a) Helps in framing policies.	*(a)* Difficulty of prediction of events.
(b) Helps in framing goals.	*(b)* Difficulty of gaining co-ordination.
(c) Helps in co-ordinating the activities.	*(c)* Rigid financial plan.
(d) Helps in reducing the cost.	*(d)* Change.
(e) Helps in measuring the assets.	*(e)* Planner's bias.
(f) Helps in building the success.	*(f)* Complex financial plans.
(g) Helps in expansion and diversification.	*(g)* Requires frequent changes.
(h) Helps in profitability.	
(i) Helps in wealth maximisation.	

Questions

Section – A

1. Give the meaning of the term financial plan.
2. Name the major steps in financial planning?
3. What are the components of the financial plan?
4. Mention any four needs of preparing a financial plan.
5. Mention the limitation of financial planning.
6. How does "liquidity" influence the financial planning.
7. What do you mean by short-term financial plan?
8. What do you mean by long-term financial planning ?

Section – B

1. Analyse the scope of financial plan.
2. Analyse the role of financial manager in preparing the financial planning.
3. What are the limitations of financial planning? Explain.
4. Give an analytical note on the different steps of financial planning.
5. Analyse the scope of financial planning.
6. Analyse the factors that influence the financial planning.

Section – C

1. What are the advantages and disadvantages of a financial planning?
2. Write a explanatory note on "Financial Plan."
3. Explain the characteristic of sound financial plan. ***(B.U. Apr. '99)***

3

FINANCING DECISION

Financing Decision – Determinants of Capital Structure – Leverages - Financial and Operating Leverages

FINANCING DECISION

Financing decision is referred to the decision of financial executive in estimating the total capital funds of a business unit and mobilisation of the same by selecting suitable securities. In simple words 'This decision is concerned with the mobilisation of finance for investment.' There are different avenues through which a firm's funds requirement can be fulfilled *viz.*,

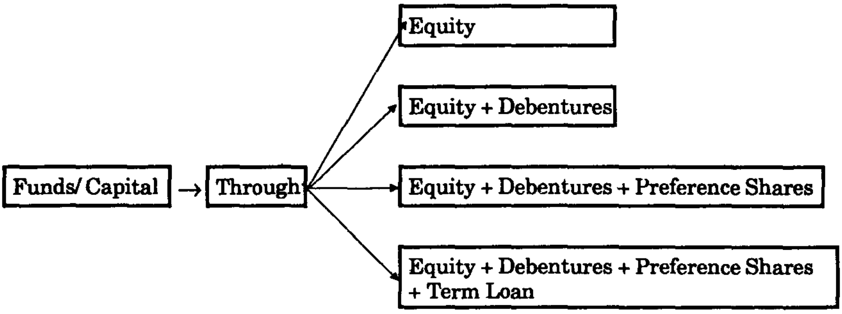


Fig. 3.1 Modes of Capital

Each of these securities has its own merits and demerits. If a firm prefers to issue only equity, it will loose the opportunity of exploiting the debt. In addition to this its operational efficiency will become low. If a company prefers to have more debt than equity (more than 2:1), it leads to 'Financial Risk'. If it decides to go for the third proposals, proper blend or mix should be made between the securities, selection of the securities, finding a suitable timings for the floatation become a tough task. If a company decides to raise funds through the fourth source, professional knowledge and scientific evolution of securities have to be made, so that is can reduce the cost of capital and maximise the earnings of the firm. In each of these steps, he has to take the interest of the investors into confidence. In the long run, it should maximise not only the wealth of company but also the wealth of investors. Hence determination of best 'financing mix' is another important task of finance manager. He should be intelligent and tactful in deciding the ratio between the debt and equity and should avail funds from best possible sources. Because each instrument is associated with different types of cost, namely, equity has the cost of dividends with high market value of shares. Debenture has the cost of interest, preference shares has the cost of agreed percentage of dividend, public deposits has the cost of interest and term loan also directly associated with the cost of bank/financial institution's rate of interest. The proper blend of these securities will reduce the overall cost of capital. He has to make such decisions in changing environment. Hence he may have to opt for flexible capital structure. He cannot have rigid debt ratio. The decision has to be taken in relation to overall valuation of the firm.

CAPITAL STRUCTURE

Introduction :

The requirement for funds is continuous for a business concern. It is required for all types of activities. Economists speak of 'Capital' as wealth which is used in the production of additional wealth. It is one of the most important elements of factors of production. Businessmen frequently use the word capital in the sense of the total assets employed in a business. The accountant uses the word in the sense of net assets, or stock holders' interest as shown by the balance sheet or the net work of stock holders' equity. In law, capital means 'Capital Stock'. The capital structure is made up of debt and equity securities which comprise a firm's financing of its assets. It is the debt, plus preferred stock, plus net worth. The scientific analysis of these instruments and its mobilisation have a considerable significance in the real life situation. An unplanned capital structure may yield good results in the short run but it is dangerous in the long run. Hence the study of capital structure becomes relevant.

Meaning :

According to Gerestenberg, "capital structure of a company refers to the composition of its capitalisation and it includes all long term capital sources *viz.*, loans, reserves, shares and bonds."

According to Schwarty, "The capital structure of a business can be measured by the ratios of various kinds of permanent loan and equity capital to total capital."

In simple words, capitalisation refers to the combination of different types of securities of a business concern. Capital structure planning keyed to the objective of profit maximisation ensures the minimum cost of capital and the maximum rate of return to equity holders. The amount of capital and its requirement is not the only consideration of a business firm, but also to have proper mix of debt to equity. Financial manager has to plan; - How much should be raised in the form of debt? and How much should be mobilished in other forms? The answer for these questions is 'Optimal Capital Structure'. It is that amount of combination of capitalisation which results in less amount of cost and yields maximum profits. A financial manager determines the proper capital structure for his firm. He determines the mix of debt and equity which would maximise the value of equity stock.

Theoretically, the finance manager should plan an 'Optimal Capital Structure' for his company. The optimum capital structure is obtained when the market value per share is maximum or the average cost of capital is marginal and the real cost of each source of fund is the same. In a practical situation, determining an optimal capital structure is a difficult task, one has to consider a number of factors other than theory. There are significant variations among industries and many individual companies within an industry with regard to capital structure. The judgement of a person taking the capital structure decision plays the most crucial part. The two similar companies may have different capital structure. Hence a uniform model or formula cannot be adopted. It is influenced by a number of other factors which are highly psychological, complex and qualitative and do not always follow accepted theory, since capital markets are not perfect and the decision has to be taken under imperfect knowledge and risk.

All the following concepts are being used by financial manager, in making financial decisions. He has to be very cautious not only in determining total size of the capital but also in mixing the various securities in the capitalisation. Following are some of the factors that directly affects the size of the capital structure.

Conceptual Clarity of:

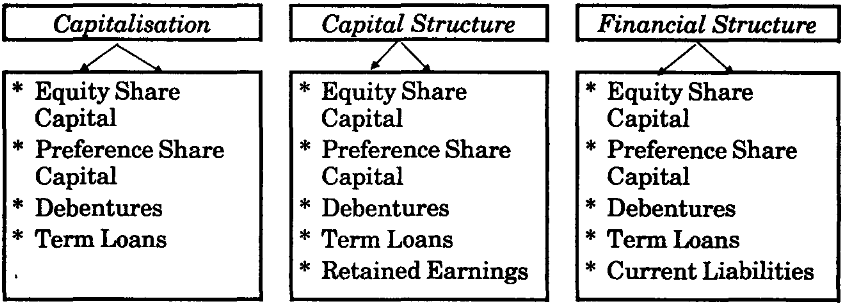


Fig. 3.2 Concept of Capitalisation, Capital Structure and Financial Structure

DETERMINANTS OF CAPITAL STRUCTURE

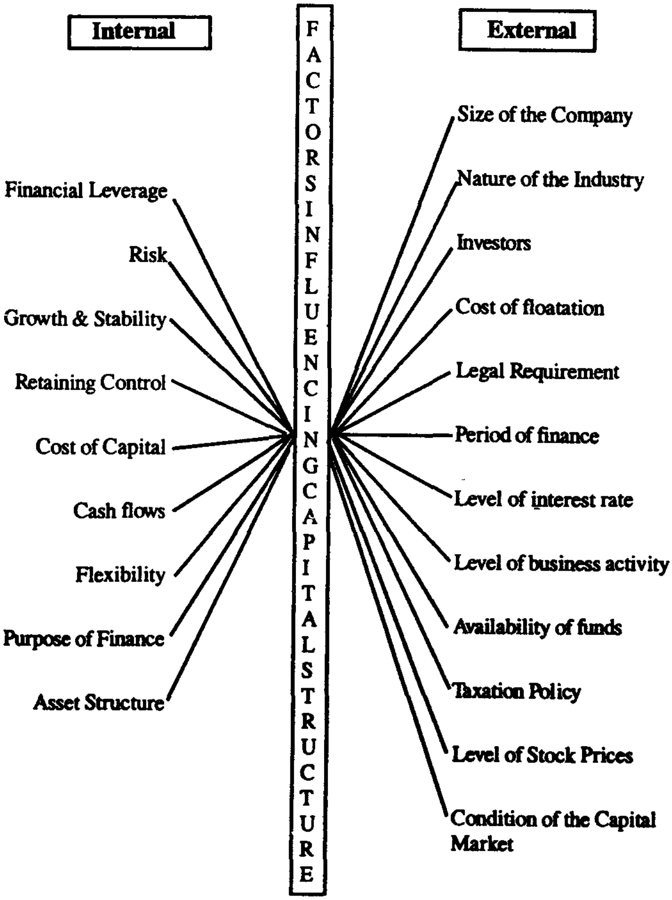


Fig. 3.3 Factors Influencing Capital Structure

The Capital structure decisions have to be planned in the initial stages of a company. It is a management decision that aims at supplying the required amount of capital. The role of finance manager in deciding the amount of capital structure is significant. He has to study and analyse the benefits and defects of issuing each type of securities. Following are some of the factors that influence the capital structure.

Internal Factors

1. Financial Leverage: The use of fixed interest bearing securities, such as debt and preference capital along with owners' equity in the capital structure is described as 'financial leverage' or 'trading on equity'. This decision is most important from the point of view of financing decisions. By having debt and equity in the capital mix, a company will have an opportunity of deployment of certain amount of debt (instead of whole equity capital) with an intention to enjoy the benefits of reduction in the percentage of tax (as interest is debited to Profit and Loss A/c). The benefit so enjoyed will be passed on to the equity shareholders in the form of high percentage of dividend.

If the assets are financed through debt, it yields higher return than the cost of debt. Earnings per share increase without an increase in the owner's investment. The earnings per share also increase when the preference share capital is used to acquire assets. (If $r > kp$) (r = return on investment and kp = cost of preference share capital). The effect of debt in capital structure is reflected in earnings per share on the followings grounds:

1. Cost of debt is usually lower than the cost of preference share capital
2. Interest paid on debt is deductable under Income Tax Law.

Therefore financial leverage is an important consideration in planning the capital structure of a company. The most popular method of examining the impact of leverage is to analyse the relationship before and Interest and Taxes under different methods of financing. EBIT – EPS (Earnings before Interest and Taxes – Earnings Per Share) analysis is an important analytical tool at the disposal of a finance manager to get an insight into the firm's capital structure.

Example : Assume, three companies have same earnings with different combination of capital structure in a given situation and examine the influence of financial leverage.

	Company A *Rs.*	*Company B* *Rs.*	*Company C* *Rs.*
EBIT/Operating Profit	2,00,000	2,00,000	2,00,000
Capital Structure:	6,00,000	4,00,000	4,00,000
Equity share capital of Rs. 10 each Debt 8%	—	2,00,000	1,00,000
Preference Capital 8%	—	—	1,00,000
Assume Tax as	50%	50%	50%

Analysis :

	Company A *Rs.*	*Company B* *Rs.*	*Company C* *Rs.*
EBIT/Operating Profit	2,00,000	2,00,000	2,00,000
Less: Interest	—	16,000	8,000
EBIT	2,00,000	1,84,000	1,92,000
Less: Income Tax	1,00,000	92,000	96,000
Profit after Tax	1,00,000	92,000	96,000
Less: Preference Dividend	—	—	8,000
Earnings to Equity shareholders	1,00,000	92,000	88,000
No. of Equity shareholders	60,000	40,000	40,000
Earnings Per Share	1.66	2.30	2.20

The analysis clearly shows the influence of debt on EPS. Though, the earnings and capital structure remains same, returns are different to equity share holders because of usage of different types of securities in the capital. EPS is more for company B, because it had Rs. 4,00,000, 8% debentures and had the benefit of high tax concessions., when compared to company A, it had the benefit Rs. 8,000 (Rs. 1,00,000 - Rs. 92,000 = Rs. 8,000), when compared to 'C', it has the benefit of Rs. 4,000 (Rs. 96,000 - Rs. 92,000 = Rs. 4,000). This benefit has been passed on to the equity share holders. Hence EPS is more. Therefore financial leverage influences the capital structure.

*2. **Risk:*** Ordinarily, debt securities increases the risk, while equity securities reduces it. Risk can be measured to some extent by the use of ratio, measuring gearing and time — interest earned. The risk attached to the use of leverage is called "Financial Risk". Financial risk is added with the use of debt because of the increased variability in the shareholder's earnings and threat of insolvency. A firm can avoid or reduce the risk, if it does not employ debt capital in the capital mix. But, it reduces the returns to equity shareholder too. Hence a finance manager must employ the debt capital in such a way that, the benefit of that should maximise the returns to equity share holders. However, in the long run EPS alone will not be considered as a determinant factor for structuring the capital. Wealth maximisation concept should be kept in mind.

*3. **Growth and Stability:*** In the initial stages, a firm can meet its financial requirements through long-term sources, particularly by raising equity shares. Once the company starts getting good response and cash inflow for growth and expansion programmes of the company. Ploughing back of profits will also be used as a source, which provides flexibility and less dependence on the outsiders' funds. The firm with stable sales can employ a high degree of leverage as they will not face difficulty in meeting their fixed commitments. The company which is having high sales and having the capacity of generating more sales revenue will opt for more amount of debt for their financial requirements. The fixed charges of these instrument can be easily paid by such revenue and can increase the returns to equity share holders. In contrast to this, a company which is having less sales revenue must reduce its burden towards debt, because of the inability of the company to pay interest on debt. Otherwise, it takes the company directly towards liquidation. Hence, the policies of growth and stability will directly influence the capital structure.

*4. **Retaining Control:*** The attitude of the management towards retaining the control over the company will have direct impact on the capital structure. If the existing shareholders want to continue the same holding on the company, they may not encourage the issue of additional equity shares. Fresh issue of equity shares reduces the interest and holding over the company. The divisible profits percentage of such company will also comes down. In the long run, it affects the market value of the shares. Hence, in the normal situation, the existing equity share holders direct the management to raise the additional source of finance only through debentures or preference shares. However, issue of debentures and preference shares also be influenced by the reputation that is enjoyed by the company. If the creditworthiness of a firm is good, it can raise the funds according to the desire of the existing shareholders.

*5. **Cost of Capital:*** The cost of capital refers to the expectation of supplier of funds. The objective of knowing the cost of capital is to increase the returns on investments, so that, a firm should earn sufficient profits to repay the interest and installment of principal to the lenders. Hence it is also known as the minimum rate of return a firm earns on its investments, so that the market value of equity shares of the company does not fall. In real life situation, a finance manager evaluate the cost of equity by considering the percentage of dividend and the capital gains expected by equity shareholders. The cost of debentures is assessed by taking the assured percentage of interest. The funds borrowed from banks or financial institutions will have the cost of interest. The source of preference share capital will have the cost of percentage of dividend. Therefore, different type of source of funds will have different types of costs. Debt is a cheaper source of funds when compared to other sources. The return on total capital employed can be maximised by minimizing total average cost of capital. Careful decision has to be made in selecting the size of debt, because, beyond a particular ratio (D:E) debt increases the risk of a firm. Hence cost of capital influences the capital structure.

6. Cash Flows: Cash flow ability of a company will have direct impact on the capital structure. Cash flow generation capacity of a firm increases the flexibility of finance manager in deciding the capital structure. Cash generated by a company or availability of continuous supply of cash increases the reputation of a company. Cash flows permits the company to meet its short term obligations. A firm will have the obligation to pay dividend to equity shareholders, interest to bankers and debenture holders. Cash flow generating capacity of a company helps in meeting these commitment. Sound cash flow facilitates the finance manager in raising funds through debt. Insufficient availability of cash inflows takes the company to a disastrous situation. Many at time, a firm which cannot meet its short-term obligation not only looses its creditworthiness but also goes to liquidations. It is quite risky to employ fixed charges source of finance by those companies where cash inflows are unstable and unpredictable. The important ratio is net cash inflows to fixed charges. It indicates the number of times the fixed financial obligations are covered by the company. The greater the coverage, the greater the amount of debt a company can use. Higher debt proportion can be employed by a company even with small coverage when following two conditions are met;

(a) Cash inflows do not have significant yearly variance.

(b) A small probability of cash inflows are being considerably used to meet less fixed charges in a given period.

Therefore, it is the yearly cash inflows that matters much to decide the capacity of a company to borrow debt. During recession, when a firm faces difficulty of getting sufficient sales revenue, it suffers severely for cash flows. This strains the finance manager in arranging funds for meeting its fixed obligation. As a temporary arrangement, it can realise funds by selling a portion of permanent current assets. This arrangement can be made only for a temporary period, *i.e.*, till the sales of such company increases. The regular picture or position of cash flows can be determined by preparing "fund flow and cash flow statements".

7. ***Flexibility:*** Flexibility means the firms' ability to adopt its capital structure to the needs of changing conditions, its capital structure should be flexible, so that without much practical difficulties, a firm can change the securities in capital structure. Redeemable preference shares and redeemable debentures increases the flexibility of capital structure, as it can be redeemed at the discretion of the company. The degree of flexibility in the capital structure mainly depends on:

(a) Flexibility in Fixed Charges
(b) Restrictive covenants in loan agreement
(c) Terms of Redemption and
(d) The Debt Capacity

(a) Flexibility in Fixed Charges: Different securities will have different fixed commitments of interest or cost. Interest cost on the borrowings will have permanent obligation on the company. Obligation of dividend on preference share is not permanent, it becomes a commitment only when a company earns profit. The non-payment of preference dividend can cause a set back to the company's reputation, but, it does not result in insolvency. The dividend on equity shares is not at all an forced obligation. As a policy, a company may give dividend regularly but it is free to retain certain amount of profit as 'retained earning'. This can be used as a source of funds for expansion and diversification programmes. Thus, from the fixed charges of a firm, it can decide the ratio of debt to equity mix. Hence capital structure is influenced by the fixed charges of different securities.

(b) Restrictive Covenants: Restrictive covenants are commonly included in long-term loan agreements and debentures. These restrictions curtail the freedom of a company in dealing with financial matters and put it in an inflexible position. Covenants in loan agreements may include restrictions to raise additional external finances. A company may also be required to maintain a certain amount of working capital or to maintain certain ratios, such as debt equity restrictions, which may be quite reasonable from the point of view of creditors as they are meant to protect their interests; but they reduce the flexibility of company to operate freely and may become burdensome if conditions change. Therefore, a company should ensures while issuing debentures or accepting other forms of long-term debt that a minimum of restrictive clauses, that circumscribe its financial action in future, are included in debt agreements.

(c) Terms of Redemption: A company must have maximum flexibility in its capital structure to maximise the returns on investment. This can be maintained by having redeemable preference shares and debenture at the firm's discretions. This helps the company to replace different securities easily. When a firm has excess cash, it can repay or redeem preference shares and debentures. If inadequacy in cash arises, it can issue additional securities. Hence terms of redemption influences the capital structure.

(d) The Debt Capacity: The flexibility of the capital structure also depends on the company's debt capacity. If a firm has less amount of debt with more amount of equity capital, it has the potentiality of raising debt finance whenever it requires. The unused debt capacity facilitates flexibility in the capital structure. Therefore cost and benefit of each 'mix' should be evaluated before taking a final decision on the 'Capital Structure'.

8. Purpose of Finance: The purpose of finance is another factor that influence the capital structure. If a firm is engaged in business transactions, it can make use of debt & equity mix or can enjoy leverage benefits. If funds are needed for non-profit organisations to build social welfare measures, it can meet its requirements only through equity capital. For an existing company, funds may be required for expansion or diversification. It may be financed through retained earnings, debentures or preference capital. Hence purpose of business influences the capital structure.

9. Asset Structure: Funds are needed to make investments on Fixed assets and Current assets. Fixed assets investments can be met by long-term sources *viz.*, through the issue of equity, debentures or preference. A portion of current asset investments are also financed by long-term sources. Short-term sources are used for meeting the working capital requirement. Hence asset structure (both fixed assets and current assets) influences the capital structure.

External Factors

1. Size of the Company: If the size of business is small, the requirement of finance is too little. If the size of the business of a firm is large, larger amount of capital is required. If a firm plans to raise smaller amount of capital, it selects only few securities in its capital structure. If it needs more capital, number of different securities will be selected to raise funds with more flexibility in the capital structure.

2. *Nature of Industry:* The nature of industry, method of production, type of product etc., will also influence the capital structure. A public utility concern which has a unique support and identify from the State and Central Government. (Food Corporation of India, Mysore Power Corporation) can raise funds through preference shares or debentures. A capital intensive industry engaged in manufacturing iron and steel products may have high equity and less debt capital. a trading company, which has less assets structure, has to depend mainly on equity or preference capital to meet their capital requirement.

3. *Investors:* In the recent past, the behaviour of the investors have changed. The statistics of public issues in the primary market indicates more fluctuation in the flow of funds.

TABLE SHOWING THE PROFILE OF PUBLIC ISSUES

Year	*No. of Issues*	*Total Amount in Lakhs (Rs.)*	*% Variations*
Jan 92 - Dec. 92	405	5,47,650.00	
Jan 93 - Dec. 93	667	11,15,992.00	+200
Jan 94 - Dec. 94	1130	9,19,288.00	- 82
Jan 95 - Dec. 95	1444	14,38,454.00	+156
(figures represents calendar years)			

In the year 1992, total number of public issues made were 405, amount mobilised was Rs. 5,47,650 lakhs. This has considerably increased in the year 1993, total number of public issues went up to 667 and amount mobilised increased almost 200% *i.e.*, Rs. 11,15,992 lakhs. From then on, though the number of public issues increased, the size of the amount raised has considerably reduced *i.e.*, Rs. 9,19,288 lakhs, the incremental negative effect of 82%. In the year 1995, the number of public issues went up to 144 and amount raised was Rs. 14,38,454 lakhs. The incremental changes between 1994 and 1995 is 156%.

This indicates the changes of investments in the capital market. The investment on securities was still less in the year 1996. Now the investors are cautious over the investments. Political, socio-economic factors of the country made the investors to be very alert in their portfolio management. Hence, capital market is moving from equity to debt and debt to Deep Discount Bonds.

TABLE SHOWING THE DETAILS OF PUBLIC AND RIGHTS ISSUE OF BONDS AND SHARES

Amt. in crores

Year	*Amt. Rs.*	*Nos.*	*% Variations Amt.*	*Nos.*
1994-95	27632	1692	—	—
1995-96	20804	1725	–75%	—102%
1996-97	14276	882	–69%	— 51%
1997-98	4570	111	–32%	— 13%

Source: SEBI Annual Report Business World – Nov. 98 p.29.

By analysing the above table, it is concluded that investors are not interested in investing their savings in primary market. The percentage variations indicated negative growth in terms of money raised and in terms of number of issues relating to shares, rights issues and bonds. The market responded favourably in the year 1994-95 (Amt. Rs. 27,632 crores, number 1692) but has drastically reduced to Rs. 4,570 crores and number to 111, in the year 1997-98. Hence the preference of investors directly influence the capital structure of a business concern. Hence the financial manager must be alert in selecting the securities for capital structure.

4. ***Cost of Floatation:*** The cost of floatation refers to the expenses a firm incurred during the process of public issues. Advertising, campaigning, printing of application forms, fees of merchant bankers, underwriting commission, brokerage etc. The finance manager has to evaluate such expenses with particular reference to each financial instrument. Cost of floatation of debt is comparatively less when compared to cost of floatation of equity. he should try to reduce this cost by proper mix of debt and equity in the capital structure.

5. ***Legal Requirements:*** The legal and statutory requirement of the Government will also influence the capital structure. SEBI guidelines on investors protection, maintaining D:E ratio and current ratio, promoter contribution etc., will have direct bearing on capital structure. Besides this, the monetary and fiscal policies of the government also affect the capital structure decision.

6. ***Period of Finance:*** Funds are required for different period for different purposes. Short term (1-3 years) funds are required to meet working capital requirements. Hence, it is raised through commercial banks (O.D, cash credit), medium term finance (8-10 years) is required to meet expansion and diversification purposes and which can be raised through issue of preference or debenture capital. Funds are needed permanently for a company to meet its capital expenditure. This can be raised by issuing equity shares. Hence period of finance will also influence the capital structure.

7. Level of Interest Rate: The rate of interest will have a direct impact on borrowed funds. If the expectation of the banker or financial institution is more to get high percentage of interest, a firm can postpone the mobilisation of funds or can make of retained earnings. Hence it affects the capital structure.

8. Level of Business Activity: When a level of business activity of a firm is raising, it requires more funds for expansion and diversification. The company may opt for raising additional funds through issue of debentures, preference shares or it can borrow term loans. Hence it affects the capital structure.

9. Availability of Funds: The availability of money in the capital and money market will directly influence the company at the time of issuing securities. Free flow of money in the economy encourages a corporate to raise funds through securities without much difficulties. Hence a finance manager has to study the flow and availability of funds before he decides about the capital structure.

10. Taxation Policy: High corporate tax, high tax on dividend and capital gains directly influence the decision of capital structure. High tax discourages the issues of equity and encourages to issue more amount debt instrument, as the fixed charges on these securities, *i.e.*, interest can be directly charged to Profit and Loss A/c for income tax calculations. Hence capital structure of a company is affected.

11. Level of Stock Prices: If the general price level of stock or raw material are constant over a period of time, management prefers to invest such funds either through equity or preference capital, in other words, long-term or medium term financing. If the prices are fluctuating too widely (impossible to predict), short term source is the best alternative for investments.

LEVERAGES

Leverages – Financial Leverage – Operating Leverage

FINANCIAL LEVERAGE

Introduction

The main aim of any business unit is to maximise the wealth of the firm and increased return to the equity holders of the company. Earnings per share is a barometer through which performance of an industrial unit can be measured. This could be achieved by applying the principle of financial leverage. In the modern business context, this has been widely used. Financial leverage helps the finance manager to select an appropriate mix of capital structure. Capital is required for the purpose of meeting both long term and short term financial requirement of a business unit. This could be raised through long term as well as short term sources, namely, equity shares, debentures, preference shares, public deposits etc., overdraft, cash credit, bill discounting etc., can be used raise finance to fulfil the short term requirement. Each of these instrument is directly associated with the cost. Equity has the cost of expectations of the equity share holders (dividend and capital gain), Debentures have the cost of interest, Preference capital has the cost of dividend, and deposit has the cost of interest. Therefore, it is the absolutely necessity to reduce the weightage average cost to be minimum through which a firm can increase the returns to equity share holders.

Meaning of Leverage

Leverage has been defined as "the action of a lever, and mechanical advantage gained by it." A lever is a rigid piece that transmits and modifies force or motion where forces are applied at two points and turns around a third. In simple words, it is a force applied at a particular point to get the desired result. The physical principle of the lever is instinctive appealing to most. It is the principle that permits the magnification of force when a lever is applied to a fulcrum. The term leverage, it is possible to lift the objects, which is otherwise impossible.

The term leverage refers generally to circumstances which bring about an increase in income volatility. In business, leverage is the means which a business firm can increase the profits. The force will be applied on debt, the benefit of this is reflected in the form of higher returns to equity share holder. It is termed as "Trading on Equity".

Christy and Rosen define leverage as, the tendency for profits to change at a faster rate than sales. It is a relationship between equity share capital and securities, and creates fixed interest and dividend charges. It is also known as "gearing". The term gearing explains the relationship between the equity capital and fixed bearing securities. This helps the business units in finalising the issues of capitalisation. Gearing gears up the effect on earnings of any change at the trading profit level. However, it is a double edged weapon and emphasises the effects of deterioration as well as of improvement. According to James Horne. "Leverage is the employment of an asset or funds for which the firm pays a fixed cost or fixed return". It is a tool of financial planning. Leverage helps the management in controlling the fixed costs relating to sales. Thus leverage is a cost depicting tool.

Irrespective of the size of the sales, certain costs are bound to incur. These costs have direct relationship to profits, by reducing these costs, one can increase the profit. The process of reducing these costs are assisted by the tools of leverages. These tools helps the management in knowing the relative change of sales. If the leverage is high, even little change in sales volume will result in higher profit. The opposite is the situation, when there is low degree of leverage. Thus:

(a) Leverage is a financial tool in the hands of an analyst.

(b) It quantifies the relative changes in profit due to change in sales.

(c) It depicts the change in fixed costs incurred to sell the goods.

(d) It helps the management in controlling operating costs or varying the profit with an element of risk. It also helps in forecasting.

(e) It establishes the relationship between the volume of sales and operating profit. The two variables when varied show the relative changes. This variation is called "Degree of Leverage".

Types of Leverages

MASTER TABLE TO CALCULATE THE LEVERAGES

	Amount Rs.
Sales	....
Less: Variable Cost	....
Contribution	....
Less: Fixed Cost	....
Operating profit / Earning Before interest and Tax [EBIT]	....
Less: Interest	....
Earnings Before Tax [EBT]	....
Less: Tax	....
Earning after Tax	....
Less: Preference dividend	....
Earnings available to Equity shareholders	....

Financial Leverage

$$\text{Financial Leverage} = \frac{\text{Operating Income/EBIT}}{\text{Taxable Income/EBT}} \quad \text{or}$$

$$\frac{\text{EBIT}}{\text{EBIT} - \text{I}} = \frac{\text{EBIT}}{\text{EBT}}$$

EBIT = Earnings before Interest and Tax

EBT = Earnings before Tax

I = Interest

Financial leverage is a tool with which a financial manager can maximise the returns to the equity shareholders. The capital of a company consists of equity, preference, debentures, public deposits and other long term source of funds. He has to carefully select the securities to mobilise the funds. The proper blend of debt to equity should be maintained. The ratio through which he balances the mix of debt applied on the capital mix offers benefits to the equity shareholders is known as Trading on Equity. As the debt is associated with the cost of interest, that can be directly charged to profit and loss account or charged against the profit, thereby it reduces the burden of Income tax. The benefit so gained will be passed on to the equity share holder. In such circumstances the EPS will be more. If the company prefers of raise the account of debt through Equity, it will loose the opportunity of charging the interest directly against the profit, as a result of this, it had to pay more tax to the government and in turn earnings available to equity shareholders would reduce. Hence in other words financial leverage refers to the use of fixed charges securities in the capitalisation of company to produce more gains for the equity share holders.

Thus the financial leverage signifies the relationship between the earning power on equity capital and rate interest on borrowed capital. If the earnings of company has more amount of fixed cost of interest (which would arise due to more debt capital), the overall returns of a company get reduced and, financial risk increases. This may be an unfavourable situation for business concern and practically not advocated. The more accepted ratio between Debt to Equity is 2:1. This ratio favours leverage effect on equity shares and would get higher percentage of earnings.

The two quantifiable tools *viz.*, operating and financial leverage are adopted to know the earnings per share and also it shows the market value of the share. (Price earning ratio by EBIT.) Thus financial leverage is a better tool compared to operating leverage. Change in, EPS due to changes in EBIT results in variation in market price. Therefore financial and operating leverages act as a handy tool to the analyst or to the financial manager to take the decision with regard to capitalisation. He can identify the exact relationship between the EPS and EBIT and plan accordingly. High leverage indicates high financial risks which would signal the finance manager to select the securities carefully.

Example:

A company has the following capital structure:

Equity Capital of Rs 10/- each	=	Rs	5,00,000
15% Debentures of Rs 500 each	=	Rs	5,00,000
Total	=	Rs	10,00,000
EBIT or operating profit	=	Rs	2,00,000

$$\text{Financial Leverage} = \frac{\text{EBIT}}{\text{EBT}} \textit{ or } \frac{\text{EBIT}}{\text{EBT} - \text{I}} = \frac{2{,}00{,}000}{2{,}00{,}000 - 75{,}000}$$

$$\text{I} = \text{Interest} = \frac{15}{100} \times 5{,}00{,}000 \text{ (Deb)} = 75{,}000;$$

$$\text{F.L.} = \frac{2{,}00{,}000}{1{,}25{,}000} = 1.6 \text{ times}$$

Operating Leverage

There are two major classifications of costs in the organisation. They are *(a)* Fixed cost *(b)* Variable cost. The operating leverage has a bearing on fixed costs. There is a tendency of the profits to change, if the firm employs more of fixed costs in its production process, greater will be the operating cost irrespective of the size of the production. The operating leverage will be at a low degree when fixed costs are less in the production process. "Operating leverage shows the ability of a firm to use fixed operating cost to increase the effect of changes in sales on its operating profits.' It shows the relationship between the changes in sales and the charges in fixed operating income. Thus the operating leverage has impact mainly on fixed cost, variable cost and contribution. It indicates the effect of a change in sales revenue on the operating profit (EBIT). Higher the operating leverage indicates higher the amount of fixed cost and reduces the operating profit and increases the business risks.

$$\text{Operating Leverage} = \frac{\text{Contribution}}{\text{EBIT/Operating Profit}}$$

Example : A firm has the following sales and cost data. Sales 50,000 units @ Rs. 6 per unit. Variable expenses Rs 2 per unit. Fixed expenses Rs 1,00,000. The earnings will be:........

		Rs.
Sales (50,000 × Rs. 6)	=	3,00,000
Less:Variable Cost (50,000 × Rs. 2)	=	1,00,000
Contribution	=	2,00,000
Less: Fixed expenses	=	1,00,000
EBIT/Operating Profit	=	1,00,000

Let us assume that sales is dropped to 25,000 units. Thus

		Rs.
Sales (25,000 × Rs. 6)	=	1,50,000
Less: Variable Cost (25,000 × Rs. 2)	=	50,000
Contribution	=	1,00,000
Less: Fixed expenses	=	1,00,000
EBIT/Operating Profit	=	Nil

From the above calculation, it is observed that, variation in production influences the operating profit. When the production was 50,000 units, the EBIT was 1,00,000 and EBIT was nil, when the production was dropped to 25,000 units.

Let us compare the same situation by using operating leverage.

Situation I : Where sales = Rs 3,00,000, V.C. = Rs. 1,00,000 and Fixed cost = Rs. 1,00,000

$$\text{Operating Leverage} = \frac{\text{Contribution}}{\text{EBIT/Operating Profit}}$$

		Rs.
Sales	=	3,00,000
Less: Variable Cost	=	1,00,000
Contribution	=	2,00,000
Less: Fixed expenses	=	1,00,000
EBIT/Operating Profit	=	1,00,000

$$\text{Operating Leverage} = \frac{2,00,000}{1,00,000} = 2 \textit{ times}$$

Situation II : If the sales has dropped to Rs. 1,50,000, V. Cost = Rs 50,000 and Fixed cost = Rs. 1,00,000.

		Rs.
Sales	=	1,50,000
Less: Variable Cost	=	50,000
Contribution	=	1,00,000
Less: Fixed expenses	=	1,00,000
EBIT/Operating Profit	=	Nil

$$\text{Operating Leverage} = \frac{1,00,000}{0} = 0$$

Hence, if the production is reduced to 25,000 units (50%), it is not possible for the firm to have operating profit.

In the previous illustration, we have learnt that 25,000 units of production will not yield any operating profit or the company has reached the break-even points. Any units which are produced beyond 25,000 units yields operating profits. Therefore, any increase in sales, fixed costs remaining same, increases operating profit. The increase in percentage operating income due to percentage of increase in sales is called as "Degree of operating leverage." This is calculated as follows:

$$\text{Degree of Operating Leverage} = \frac{\text{Percentage change in Income}}{\text{Percentage change in Sales}}$$

Let us understand the degree of operating leverage with the following example:

Particulars	*1995*	*1996*
Sales: Rs. 4 per unit Variable Cost Rs. 2 per unit Fixed Cost	50,000 units Rs. 50,000	55,000 units Rs. 50,000

Particulars	*1995*		*1996*	*Variations*
	Rs.		*Rs.*	*Rs.*
Sales: 50,000 × 4	2,00,000	55,000 × 4	2,20,000	20,000
Variable Cost 50,000 × 2	1,00,000	55,000 × 2	1,10,000	10,000
Contribution	1,00,000		1,10,000	10,000
Less: Fixed Cost	50,000		50,000	Nil
EBIT/Operation Profit	50,000		60,000	10,000

$$\text{Operating Leverage} = \frac{\text{C}}{\text{EBIT}} = \frac{1,00,000}{50,000} = \frac{1,10,000}{60,000} = 10,000$$

$$= 2 \text{ times} \quad = 1.83 \text{ times}$$

When the sales revenue increases by 10% (2,00,000 × 10/100) Operating leverage will be 1.83 times or 18.33 percent and increases EBIT by Rs. 10,000.

Combined Leverage

$$\text{Combined Leverage} = \text{Operating Leverage} \times \text{Financial Leverage}$$

$$\text{Combined Leverage} = \frac{\text{Contribution}}{\text{Operating Profit/EBIT}} \times \frac{\text{EBIT}}{\text{EBT}}$$

$$\text{Combined Leverage} = \frac{\text{Contribution}}{\text{Earnings before Tax}}$$

This leverage shows the relationship between a change in sales and the corresponding variation in taxable income. If the management feels that a certain percentage change in sales would result in percentage change in taxable income they would like to know the level or degree of change and hence they adopt this leverage. Thus, degree of leverage is adopted to forecast the future study of sales levels and the resultant increase/decrease in taxable income. This degree establishes the relationship between contribution and taxable income.

Example: A company has a sales of Rs. 2 lakhs. The variable costs are 40% of the sales and fixed expenses are Rs. 60,000. The interest on borrowed capital is assumed to be Rs. 20,000.

Compute the combined leverage and show the impact on taxable income when sales increases by 10%.

Solution:

		Rs.
Sales	=	2,00,000
Less: Variable Cost (40/100 × 2,00,000)	=	80,000
Contribution	=	1,20,000
Less: Fixed Cost	=	60,000
Operating Profit/EBIT	=	60,000
Less: Interest on Borrowings	=	20,000
Earning before Tax	=	40,000

$$\text{Combined Leverage} = \frac{\textit{Contribution}}{\textit{EBIT}} = \frac{1{,}20{,}000}{40{,}000} = 3 \text{ times}$$

When sales increases by 10% (*i.e.*, Rs. 2,00,000 × 10/100 = 20,000) = Rs. 2,20,000.

		Rs.
Sales	=	2,20,000
Less: Variable Cost (40/100 × 2,20,000)	=	88,000
Contribution	=	1,32,000
Less: Fixed Cost	=	60,000
Operating Profit/EBIT	=	72,000
Less: Interest on Borrowings	=	20,000
Earning before Tax	=	52,000

$$\text{Combined Leverage} = \frac{\text{Contribution}}{\text{EBIT}} = \frac{1{,}32{,}000}{72{,}000} = 1.83 \text{ times}$$

This shows that there is an increase of Rs. 12,000 EBIT (Rs. 52,000 - Rs. 40,000), for an increase of 10% of sales. The taxable income increases by 30%.

$$\text{Increase in Taxable Income} = \frac{\text{Incremental Profit}}{\text{Original Profit}}$$

$$= \frac{12{,}000}{40{,}000} \times 100 = 30\%$$

It should be noted that the leverage is ascertained from a particular sales point. When different levels of sales are adopted, different degrees of composite leverages are obtained. When the volume of sales increases, fixed expenses remains same, the degree of leverage falls. This happens because of existence of fixed charges in the cost structure.

Significance of Operating and Financial Leverage

These two leverages are used to know the impact on earnings per share and the price earning ratio. As the financial leverage is more effective on EPS, it is popularly used than operating leverage. The different combination of dent to equity helps the management to maximise the earnings to the equity shareholders. This helps the management to achieve wealth maximisation in the long run. Continuous increase in the size of the debt increases the financial risks. The majority of earnings will directly goes to meet the interest cost on borrowings. It adversely affect the overall performance of the organisation. Hence, he should evaluate the different mix of capital and select the best mix which maximise the earnings without involving financial risk to the firm.

Operating leverage is based on the principle of marginal costing, where BEP can be calculated at different level of sales. Any increase of sales beyond BEP sales will yield higher operating profit, (fixed cost remain constant). Any change in sales due to the change in operating cost results in higher operating profits. Therefore, operating leverage is said to be "First phase Leverage" which magnifies the profit due to change in sales volume. The financial leverage is said to be a "Second phase Leverage" as it starts off at the point where the operating leverage stops. These two leverages are properly blended to have profit maximisation and wealth maximisation which are the two objectives of financial management.

In a real life situation, a financial manager has to carefully use these ratios to maximise the returns to equity share holders. If he opts for high degree of operating as well as financial leverage, company will be exposed to risk. The fixed cost will have to be met mainly by debt capital. The majority of earnings will go only for interest component. Ultimately this results in lesser amount of operating profits. To have higher percentage of profits, firm has to operate at highest efficiency many at times, it is beyond the reach of any management.

Contrast to this, if a firm operates at low degree operating and financial leverage, majority of fixed commitment or capital expenditure will be met by equity capital. Even under this condition, the benefit of tax planning will not be there to a company, it is forced to pay more tax, in turn it reduces EPS. In addition to this, as the obligation of firm to outsiders is less, company invariably operates at lesser efficiency.

Therefore, there should be judicious operation of these two leverages. It is better if a firm follows "Low degree operating leverage and high degree of financial leverage." However, financial manager has to take other factors also into consideration at the time of finalising combination of capital structure.

Financial Risk: Financial leverage not only maximises the returns to share holders but also exposes a firm to high financial risk, (if it is unplanned). The theory says 'leverage effect can be enjoyed only up to a particular point of time or stage', (if all other things are favorable). If it crosses the expected line (more debt and less equity), increases the financial risk (interest burden) and ultimately it leads to insolvency. Capital structure only through equity is also not favourable to the company, as it reduces EPS. (because of non-existence of debt capital). The entire earnings of the company will become taxable, as a result of this, it has to declare lower percentage of dividend, in the long run, it would directly affect the market value of shares.

Business Risk: Business risk is related to the investment decisions or assets mix of the firm. Business risk may be defined as the variability in return on assets. Such a variability is the result of internal and external environment, in which the firm has to operate. Given the environment in which a firm has to operate, business risk is an unavoidable risk. Therefore, it is the basic duty of the financial executives to take both the risks in taking financial as well as investment decisions.

The first aspect of financial risk *viz.*, the relatively higher variability in the share holders' earnings can be measured by calculating co-efficient of variation of the share holders' expected earnings. The co-efficient of variation of the expected earnings from total assets, defines business risk.

$$\text{The co-efficient of Variation} = \frac{\sigma}{x} \times 100$$

Where (σ = standard deviation about the probability distribution of expecting earnings and $\overline{X}$ = average expected earnings). If the expected earnings of the firm and the expected earnings of the shareholders would be equal in the case of debt free firm. But the financial risk derived for a levered firm as the coefficient of variation of its shareholder's earnings would be greater than that of an identical debt free firm.

Example: The expected future average annual net operating incomes of firms A and B are Rs. 40,000 with the standard deviation of Rs. 10,000. Firm A is debt free while firm B has 10% debentures of Rs. 60,000. Ignoring taxation, ascertain which firm is risky form the shareholder's point of view?

Solution:

$$\text{Co-efficient of Variation} = \frac{\text{Standard Deviation}}{\text{Average Operating Income}}$$

Firm A	*Firm B*
(Only Equity)	(Equity + Debt of Rs. 60,000)
$CV = \frac{10,000}{40,000} \times 100 = 25\%$	$CV = \frac{10,000}{40,000 - 6,000} \times 100$
CV = 25%	Interest = 10/100 × 60,000 = Rs. 60,000
	$CV = \frac{10,000}{34,000} \times 100 = 29.41\%$

Since co-efficient of variations of Firm B is greater than that of A, Firm B is more risky from the shareholder's point of view.

Difference between Operating and Financial Leverage

Operating Leverage	*Financial Leverage*
1. Operating leverage is related to the investment activities (Capital expenditure decision).	1. Financial leverage is more concerned with financial matters (Mixing of Debt Equity in Capital structure).
2. The fluctuation in the EBT can be predicted with the help of operating leverage.	2. The changes of EPS due to D:E. Mix is predicted by financial leverage.
3. Financial manager uses the operating leverage to identify the items of assets side of the Balance Sheet.	3. The uses financial leverage to make decisions in the liability side of the Balance Sheet.
4. Operating leverage is used to predict business risk.	4. Financial leverage is used to analyse the financial risk.

SOLVED PROBLEMS

Illustration 1 :

From the following data calculate financial, operating and combined leverage.

Sales 10,000 units Rs. 25 per unit as the selling price

Variable Cost Rs. 5 per unit

Fixed Cost Rs. 30,000

Interest Cost Rs. 15,000

Solution:

MASTER TABLE

		Rs.
Sales (10,000 × Rs. 25 per unit)	=	2,50,000
Less: Variable Cost (10,000 × Rs. 5 per unit)	=	50,000
Contribution	=	2,00,000
Less: Fixed cost	=	30,000
Operating Profit (EBIT)	=	1,70,000
Less: Interest	=	15,000
Earning before Tax	=	1,55,000

(A) Financial Leverage $= \dfrac{\text{EBIT (Operating Profit)}}{\text{EBT (Earnings before Tax)}}$

$$= \frac{1,70,000}{1,55,000} = 1.09 \text{ times}$$

(B) Operating Leverage $= \dfrac{\text{Contribution}}{\text{EBIT (Operating Profit)}}$

$$= \frac{2,00,000}{1,70,000} = 1.17 \text{ times}$$

(C) Combined Leverage $= \text{F.L.} \times \text{O.L. or} = \dfrac{\text{Contribution}}{\text{EBIT}} \times \dfrac{\text{EBIT}}{\text{EBT}}$

$$= \frac{2,00,000}{1,70,000} \times \frac{1,70,000}{1,55,000} \times \frac{2,00,000}{1,55,000}$$

$$= 1.29 \text{ times}$$

Illustration 2 :

From the following data
Interest Rs. 10,000; Sales 15,000 units @ Rs. 10 per unit and Variable Cost Rs. 4 per unit; Fixed Cost Rs. 20,000

Solution:

MASTER TABLE

		Rs.
Sales (15,000 × Rs. 10 per unit)	=	1,50,000
Less: Variable Cost (15,000 × Rs. 4 per unit)	=	50,000
Contribution	=	90,000
Less: Fixed cost	=	20,000
Operating Profit (EBIT)	=	70,000
Less: Interest	=	10,000
Earning before Tax	=	60,000

(A) Operating Leverage $= \dfrac{\text{Contribution}}{\text{EBIT (Operating Profit)}}$

$$= \frac{90{,}000}{70{,}000} = 1.28 \text{ times}$$

(B) Financial Leverage $= \dfrac{\text{EBIT (Operating Profit)}}{\text{EBT (Earnings before Tax)}}$

$$= \frac{70{,}000}{60{,}000} = 1.166 \text{ times}$$

(C) Combined Leverage = F.L. × O.L.

$$= 1.28 \times 1.166 = 1.49 \text{ times}$$

Illustration 3 :

Evaluate two companies in terms of its financial and operating leverages.

	Firm A	*Firm B*
Sales	Rs. 20,00,000	Rs. 30,00,000
Variable Cost	40% Sales	30% Sales
Fixed Cost	Rs. 5,00,000	Rs. 7,00,000
Interest	Rs. 1,00,000	Rs. 1,25,000

Solution :

MASTER TABLE

	Firm A *Rs.*	*Firm B* *Rs.*
Sales	20,00,000	30,00,000
Less: Variable Cost		
A: 40/100 × 20,00,000	8,00,000	
B: 30/100 × 30,00,000		9,00,000
Contribution	12,00,000	21,00,000
Less: Fixed Cost Firm A	5,00,000	
Firm B		7,00,000
Operating Profit (EBIT)	7,00,000	14,00,000
Less: Interest Firm A	1,00,000	
Firm B		1,25,000
EBT	6,00,000	12,75,000

(A) Financial Leverage $= \dfrac{\text{EBIT}}{\text{EBT}}$

$$A = \frac{7{,}00{,}000}{6{,}00{,}000};\ B = \frac{14{,}00{,}000}{12{,}75{,}000}$$

Firm A = 1.16 times; Firm B = 1.09 times

(B) Operating Leverage $= \frac{\text{Contribution}}{\text{EBIT}}$

$$A = \frac{12,00,000}{7,00,000}\ ;\ B = \frac{21,00,000}{14,00,000}$$

Firm A = 1.71 times; Firm B = 1.5 times

Firm A has greater business and financial risk than Firm B.

Illustration 4 :

Consider the following date of XYZ Ltd., Selling price per unit Rs. 60; Variable cost per unit Rs. 40; Fixed Cost Rs. 3,00,000; Interest burden Rs. 1,00,000; Tax rate 50%; Preference Dividend Rs. 50,000. Calculate the three types of leverages if the number of units sold is 10,000.

(BU, B.Com., Oct 95.)

Solution :

MASTER TABLE

		Rs.
Sales (10,000 × Rs. 60 per unit)	=	6,00,000
Less: Variable Cost (10,000 × Rs. 40 per unit)	=	4,00,000
Contribution	=	2,00,000
Less: Fixed cost	=	3,00,000
Operating Profit (EBIT)	=	1,00,000
Add: Interest	=	1,00,000
Total Operating Loss (EBT)	=	2,00,000

(A) Financial Leverage $= \frac{\text{EBIT}}{\text{EBT}} = \frac{-1,00,000}{2,00,000} = -1.5$ times

(B) Operating Leverage $= \frac{\text{Contribution}}{\text{EBIT}} = \frac{2,00,000}{-1,00,000} = 2$ times

(C) Combined Leverage = OL × FL = -2 × .5 = -1 times

Illustration 5 :

The following data are available for X Ltd.

Selling price per unit = Rs. 120

Variable cost per unit = Rs. 70

Total Fixed Cost = Rs. 2,00,000

(i) What is the operating leverage when X Ltd., Products and sells 6,000 units?

(ii) What is the percentage change that will occur in the EBIT of X Ltd., if output increases by 5% ***(BU, April 95)***

Solution:

(i) Let us first take 6,000 units

MASTER TABLE

		Rs.
Sales (6,000 × Rs. 120 per unit)	=	7,20,000
Less: Variable Cost (6,000 × Rs. 70 per unit)	=	4,20,000
Contribution	=	3,00,000
Less: Fixed cost	=	2,00,000
Operating Profit (EBIT)	=	1,00,000

(B) Operating Leverage $= \frac{\text{Contribution}}{\text{EBIT (Operating Profit)}}$

$$= \frac{3,00,000}{1,00,000} = 3 \text{ times}$$

(ii) Influence of 5% increase in output on EBIT:

MASTER TABLE

		Rs.
Sales = 6,000 + 6,000 × 5/100 = 6,300 × Rs. 120 per unit)	=	7,56,000
Less: Variable Cost (6,300 × Rs. 70 per unit)	=	4,41,000
Contribution	=	3,15,000
Less: Fixed cost	=	2,00,000
Operating Profit (EBIT)	=	1,15,000

Percentage of change in EBIT at 5% increase in output

At 6,000 units------------EBIT is Rs. 1,00,000

At 6,300 units------------EBIT is Rs. 1,15,000

Percentage increase $= \frac{15,000}{1,00,000} \times 100 = 15\%$

Illustration 6 :

It is proposed to start a business requiring a capital of Rs. 10,00,000 and on assured return of 15% on investment. Calculate the EPS if (i) The entire capital is raised by means of Rs. 100 equity share; and (ii) If 50% is raised from equity share and 50% capital is raised by means of 10% debentures. (Ignoring tax) ***(BU, Apr. 94)***

Solution :

(i) If the entire capital is raised through Equity: (Assume 50% tax)

Return on investment = 15/100 × 10,00,000	=	Rs.	1,50,000
Less: Tax @ 50%	=	Rs.	75,000
	=	Rs.	75,000

$$\text{No. of Equity Shareholders} = \frac{\text{Total Equity Capital}}{\text{Face Value of Shares}}$$

$$= \frac{10,00,000}{100} = 10,000 \text{ shares}$$

$$\therefore \text{EPS} = \frac{\text{Earnings on Investment}}{\text{No. of Equity Shares}} = \frac{75,000}{10,000} = \text{Rs. } 7.50 \text{ per share}$$

(ii) If 50% raised through equity and remaining 50% through debts by ignoring tax:

Return on investment = 15/100 × 10,00,000	=	Rs.	1,50,000
Less: Interest on Debentures (10/100 × 5,00,000)	=	Rs.	50,000
Earnings available to Equity Shareholders	=	Rs.	1,00,000

$$\text{EPS} = \frac{\text{Earnings}}{\text{No. of Equity Shareholders}} = \frac{1,00,000}{5,000}$$

$$= \text{Rs. } 20 \text{ per share.}$$

(iii) If 50% raised through equity and remaining 50% through debt by assuming 50% tax.

Return on investment = 15/100 × 10,00,000	=	Rs.	1,50,000
Less: Interest on Debentures (10/100 × 5,00,000)	=	Rs.	50,000
EBT	=	Rs.	1,00,000
Less: Income Tax	=	Rs.	50,000
EAT	=	Rs.	50,000

$$\text{EPS} = \frac{\text{Earnings after Tax}}{\text{No. of Equity Shareholders}} = \frac{50,000}{5,000} = \text{Rs. } 10 \text{ per share.}$$

Illustration 7 :

Gurudatta Ltd., company has equity share capital of Rs. 5,00,000 divided into shares of Rs. 100 each. It wishes to raise further Rs. 3,00,000 for modernisation plans. The company plans the plans the following financing schemes:

(a) All Equity Shares

(b) Rs. 1,00,000 in equity shares and Rs. 2,00,000 in debt @10% p.a.

(c) All debt at 10% p.a.

(d) Rs. 1,00,000 in equity shares and Rs. 2,00,000 in preference share capital with rate of dividend at 8%.

The company is estimated EBIT are Rs. 1,50,000. The corporate rate of tax is 50%. Calculate EPS in each case. Give a comment as to which Capital structure is suitable? ***(BU April, 1997)***

Solution :

(a) All Equity Shares:

		Rs.
EBIT	=	1,50,000
Less: Tax @ 50%	=	75,000
Earnings available to Equity shareholders	=	75,000

$$\text{No. of Equity shares} = \frac{\text{Rs. 5,00,000 + Additional Capital of Rs. 3,00,000}}{\text{Face value of the shares of Rs.100}}$$

$$= \frac{8,00,000}{100} = 8,000 \text{ shares}$$

$$\text{EPS} = \frac{\text{Earnings available to Equity Shareholders}}{\text{No. of Equity Shareholders}}$$

$$= \frac{75,000}{8,000} = \text{Rs. 9.37 per share}$$

(b) Rs. 1,00,000 in Equity shares and Rs. 2,00,000 in Debt @ 10%

Total Capital Composition		*Rs.*
Original Equity Capital (5,000 × Rs. 100 each)	=	5,00,000
(b) plan; Equity Capital (1,000 × Rs. 100 each)	=	1,00,000
10% Debentures (2,000 × Rs. 100 each)	=	2,00,000
		8,00,000
Earnings Before interest & tax	=	1,50,000
Less: Interest @ 10% on 2,00,000	=	20,000
Earning before Tax	=	1,30,000
Less: Tax @ 50%	=	65,000
Earnings available to equity shareholders	=	65,000

$$\text{EPS} = \frac{\text{Earnings available Equity Shareholders}}{\text{No. of Equity Shareholders}}$$

$$= \frac{65,000}{5,000 + 1,000} = \frac{65,000}{6,000} = \text{Rs. 10.83 per share}$$

(c) All debt at 10% interest per annum.

Total Capital Structure		*Rs.*
Original Equity Capital (5,000 × Rs. 100 each)	=	5,00,000
Additional Debt Capital @ 10% interest	=	3,00,000
Total Capital	=	8,00,000
EBIT	=	1,50,000
Less: Interest @ 10% on 3,00,000	=	30,000
EBT	=	1,20,000
Less: Tax @ 50%	=	60,000
EAT	=	60,000

$$\text{EPS} = \frac{\text{Earnings available Equity Shareholders}}{\text{No. of Equity Shareholders}}$$

$$= \frac{60,000}{5,000} = \text{Rs. 12 per share}$$

(d) Rs. 1,00,000 in Equity shares and Rs. 2,00,000 in Preference share capital with rate of dividend @ 8%.

Total Capital Structure		*Rs.*
Original Equity Capital (5,000 × Rs. 100 each)	=	5,00,000
Additional Equity Capital (1,000 × Rs. 100 each)	=	1,00,000
Preference Capital @ 8%	=	2,00,000
		8,00,000
Earnings Before interest & tax	=	1,50,000
Less: Tax @ 50%	=	75,000
Earning after Tax	=	75,000
Less: Preference Dividend (8/100 × 2,00,000)	=	16,000
Earnings available to Equity shareholders	=	59,000

$$\text{EPS} = \frac{\text{Earnings available Equity Shareholders}}{\text{No. of Equity Shareholders}}$$

$$= \frac{59,000}{6,000} = \text{Rs. 9.83 per share}$$

Comments: Financial plan *(c)* is preferred when compared to plan *(a), (b)* & plan *(c)*, as this plan offers Rs. 12.00 per share which is highest as compared to other plans.

Illustration 8 :

The capital structure of a company consists of an ordinary share capital of Rs. 10,00,000 (share of Rs. 100 par value) and Rs. 10,00,000 of 10% debentures. Sales increased by 20% from 1,00,000 units to 1,20,000 units, the selling price is Rs. 10 per unit, variable cost amount to Rs. 6 per unit and fixed expenses amount to Rs. 2,00,000, Income Tax to be at 50%. You are required to calculate:

(1) The percentage increase in earnings per share
(2) The degree of financial leverage at 1,00,000 units and 1,20,000 units
(3) The degree of operating leverage at 1,00,000 units and 1,20,000 units

Comment on the behaviour of operating and financial leverages in relation to increase in production from 1,00,000 units to 1,20,000 units.

Solution :

Statement showing EPS, Operating and Financial Leverage at two levels of operation.

Particulars		*1,00,000 units* Rs.	*1,20,000 units* Rs.
Sales: Rs. 10 per unit	=	10,00,000	12,00,000
Less: Variable Cost Rs. 6 per unit	=	6,00,000	7,20,000
Contribution	=	4,00,000	4,80,000
Less: Fixed Expenses	=	2,00,000	2,00,000
Operating Profit/EBIT	=	2,00,000	2,80,000
Less: Interest (10/100 × 10,00,000)	=	1,00,000	1,00,000
Profit before Tax	=	1,00,000	1,80,000
Less: Tax @ 50%	=	50,000	90,000
Profit after Tax or Net Profit	=	50,000	90,000
(i) EPS = $\frac{\text{Profit after Tax}}{\text{No. of ordinary shares}}$	=	$\frac{50,000}{10,000}$	$\frac{90,000}{10,000}$
EPS	=	Rs. 5	Rs. 9
(ii) O.L. = $\frac{\text{Contribution}}{\text{EBIT}}$		$\frac{4,00,000}{2,00,000}$	$\frac{4,80,000}{2,80,000}$
	=	2 times	1.71 times

On account of increase in sales from Rs. 1,00,000 to 1,20,000 units at the rate of Rs. 10 per unit, EPS rises by (9-5/5 × 100 = 80%). While the operating leverage comes down from 2 times to 1.71 times and financial leverage declines from 2 times to 1.55 times. There is, therefore, a significant decrease in both the business risk and the financial risk of the company on account of reduction in both the leverages. This is generally the result when there is increase in sales without any increase in operating or financial costs.

Illustration 9 :

Ramachandra Stores Ltd., has a total capitalisation of the 10 lakhs consisting entirely of equity shares of Rs. 50 each. It wishes to raise another Rs. 5 lakhs for expansion through one of its two possible financial plans. (i) All equity shares of Rs. each (ii) All debentures carrying 9% interest. Assume EBIT at Rs. 1,40,000 and Income Tax 50%. Calculate financial leverage and EPS of these financial plans.

Solution:

Financial Plan I

All through Equity Shares of Rs. 50 each

Total Capitalisation		*Rs.*
Original Equity Capital (20,000 × Rs. 50 each)	=	10,00,000
Additional Capital (10,000 × Rs. 50 each)	=	5,00,000
Total Capital	=	15,00,000
EBIT	=	1,40,000
Less: Tax @ 50%	=	70,000
EAT	=	70,000

$$\text{EPS} = \frac{\text{Earnings after Tax}}{\text{No. of Equity Shareholders}} = \frac{70,000}{30,000} = \text{Rs. } 2.33 \text{ per share}$$

$$\text{Financial Leverage} = \frac{\text{EBIT}}{\text{EBIT} - \text{I}} = \frac{1,40,000}{1,40,000 - 0} = 1 \text{ time}$$

There is no leverage effect, as there is no element of debt in this plan.

Financial Plan II

All Debenture Carrying 9% Interest +

Total Capitalisation		*Rs.*
Original Equity Capital (20,000 × Rs. 50 each)	=	10,00,000
Additional Capital through Debt @ 9%	=	5,00,000
Total Capital	=	15,00,000
EBIT	=	1,40,000
Less: Interest @ 9% on 5,00,000	=	45,000
Earnings before Tax	=	95,000
Less: Tax @ 50%	=	47,500
Earnings available to Equity shares	=	47,500

$$\text{EPS} = \frac{\text{Earnings available to Equity Shareholders}}{\text{No. of Equity Shareholders}}$$

$$= \frac{47,500}{20,000} = \text{Rs. } 2.37 \text{ per share}$$

$$\text{Financial Leverage} = \frac{\text{EBIT}}{\text{EBIT} - \text{I}} = \frac{1,40,000}{1,40,000 - 45,000} = 1.47 \text{ times}$$

Illustration 10 :

An analytical statement of X Ltd., is shown below. It is based on an output (sales) level of 80,000 units.

		Rs.
Sales	=	9,60,000
Less: Variable Cost	=	5,60,000
Contribution	=	4,00,000
Less: Fixed Cost	=	2,40,000
EBIT	=	1,60,000
Less: Interest	=	60,000
Earnings before tax	=	1,00,000
Less: Income tax	=	50,000
Net Income	=	50,000

Calculate: (a) Operating Leverage (b) Financial Leverage and (c) Combined Leverage

Solution :

(A) Financial Leverage $= \frac{\text{EBIT}}{\text{EBT}} = \frac{1,60,000}{1,00,000} = 1.6$ times

(B) Operating Leverage $= \frac{\text{Contribution}}{\text{EBIT}} = \frac{40,000}{1,60,000} = 2.5$ times

(C) Combined Leverage $= \text{OL} \times \text{FL} = 2.5 \times 1.6 = 4$ times

Illustration 11 :

A firm has sales of Rs. 10,00,000. Variable Cost Rs. 7,00,000 and Fixed Cost Rs. 2,00,000 and debt of Rs. 5,00,000 at 10% rate of interest. What are the operating and financial leverages?

If the firm wants to double up its earnings before interest and tax, how much of a risen sales would be needed on a percentage basis.

Solution :

Statement of Present Level of Profit	*Rs.*
Sales	10,00,000
Less: Variable cost	7,00,000
Contribution=	3,00,000
Less: Fixed cost	2,00,000
EBIT	1,00,000
Less: Interest	50,000
Earnings before tax	50,000

(A) Financial Leverage $= \frac{\text{EBIT}}{\text{EBT}} = \frac{1,50,000}{50,000} = 2$ times

(B) Operating Leverage $= \frac{\text{Contribution}}{\text{EBIT}} = \frac{3,00,000}{1,00,000} = 3$ times

(C) Combined Leverage $= \text{OL} \times \text{FL} = 3 \times 2 = 6$ times

Calculation of sales required to double EBIT

Since operating leverage is 3 times, 33 1/3% increase in sales volume causes a 100% increase in operating profit (EBIT). Thus at the sales of Rs. 13,33,333, EBIT will become Rs. 2,00,000. *i.e.*, doubling the existing one. Therefore, an increase in sales volume by 33 1/3% would double the EBIT.

Illustration 12 :

X Ltd., has estimated that for a new product, its BEP is 2,000 units if the item is sold for Rs. 14 per unit, the Cost Accounting Department has currently identified variable cost of Rs.9 per unit.

Calculate the degree of operating leverage for sales volume of 2,500 unit and 3,000 units.

What do your infer from the degree of operating leverage at the sales volume 2,500 units and 3,000 units and their difference, if any?

Solution:

STATEMENT OF OPERATING LEVERAGE

Particulars	*2000 units*		*2500 units*		*3000 units*	
	Per unit Rs.	*Total Rs.*	*Per unit Rs.*	*Total Rs.*	*Per unit Rs.*	*Total Rs.*
Sales	14	28,000	14	35,000	14	42,000
Less: Variable Cost	9	18,000	9	22,000	9	27,000
Contribution	5	10,000	5	12,500	5	15,000
Less: Fixed Cost		10,000		10,000		10,000
EBIT		Nil		2,500		5,000

Operating Leverage $= \frac{\text{Contribution}}{\text{EBIT}} = \frac{12,500}{2,500} = 5$ times

$= \frac{15,000}{5,000} = 3$ times.

Inference

If the sales volume is increased by 25% (from 200 to 25,000 units), the operating income increased up to Rs. 2,500 from BEP. If the incremental sales is further increased by 20% (from 2,500 to 3,000), the operating income has increased up to Rs. 5,000. which is double than Rs. 2,000 at 2,500 unit of sales. Therefore, fixed assets were exploited more to get higher operating profit.

Solution for the Illustration 13 :

Solution: Statement showing the details of Analysis of leverages under different situations with different plans									
Particulars	**Situation X**		**FC = Rs. 10,000**	**Situation, Y**		**FC = Rs. 20,000**	**Situation Z**		**FC = Rs. 25,000**
	Equity Rs. 50,000	**Equity Rs. 60,000**	**Equity Rs. 30,000**	**Equity Rs. 50,000**	**Equity Rs. 60,000**	**Equity Rs. 30,000**	**Equity Rs. 50,000**	**Equity Rs. 60,000**	**Equity Rs. 30,000 ,**
	Debts Rs. 40,000	**Debts Rs. 30,000**	**Debts Rs. 60,000**	**Debts Rs. 40,000**	**Debts Rs. 30,000**	**Debts Rs. 60,000**	**Debts Rs. 40,000**	**Debts Rs. 30,000**	**Debts Rs. 60,000**
	Rs.	**Rs.**	**Rs.**	**Rs.**	**Rs.**	**Rs.**	**Rs.**	**Rs.**	**Rs.**
Sales: 7,500 × Rs. 20 per Unit	1,50,000	1,50,000	1,50,000	1,50,000	1,50,000	1,50,000	1,50,000	1,50,000	1,50,000
Less: Variable Cost (7,500 Rs. 15 per unit)	1,12,500	1,12,500	1,12,500	1,12,500	1,12,500	1,12,500	1,12,500	1,12,500	1,12,500
Contribution	37,500	37,500	37,500	37,500	37,500	37,500	37,500	37,500	37,500
Less: Fixed Cost	10,000	10,000	10,000	20,000	20,000	20,000	25,000	25,000	25,000
EBIT	27,500	27,500	27,500	17,500	17,500	17,500	12,500	12,500	12,500
Less: Interest	4,000	3,000	6,000	4,000	3,000	6,000	4,000	3,000	6,000
EBT	23,500	24,500	21,500	13,500	14,500	11,500	8,500	9,500	6,500
F.L. = $\frac{\text{EBIT}}{\text{EBT}}$	1.17 times	1.12 times	1.27 times	1.29 times	1.20 times	1.52 times	1.47 times	1.32 times	1.92 times
O.L. = $\frac{\text{Contribution}}{\text{EBIT}}$	1.36 times	1.36 times	1.36 times	2.14 times	2.14 times	2.14 times	3 times	3 times	3 times
Combined Leverage = FL × OL	1.59 times	1.52 times	1.72 times	2.76 times	2.76 times	3.25 times	4.41 times	3.96 times	5.76 times
FC = Fixed Cost									

Illustration 13 :

Following information is obtained from a hypothetical company, which has three different situation XYZ and Financial plans I, II, & III. You are required to calculate Financial. Operating and Combined Leverage.

Total capacity of the project	*10,000 units*
Exploited capacity of Sales and production	*7,500 units*
Selling Price-----------	*Rs. 20 per unit*
Variable--------------	*Rs. 15 per unit*

Fixed Cost:

Situation: X = 10,000 Y = 20,000 Z = 25,000

Financial Plans:

1) Rs. 50,000 Equity and Rs. 40,000 debt @ 10% interest.

2) Rs. 60,000 Equity and Rs. 30,000 debt @ 10% interest.

3) Rs. 30,000 Equity and Rs. 60,000 debt @ 10% interest.

(**Solution :** P.No. 337)

Illustration 14 :

Don't Worry Ltd. needs Rs. 24,00,000 for the installation of a new factory which would yield an annual EBIT of Rs. 5,00,000. It is considering the possibility of issuing equity shares plus raising a debt of Rs. 4,00,000, Rs. 12,00,000 and Rs. 20,00,000. The current market price of equity is Rs. 40 which is expected to drop to Rs. 25 per share if the market borrowings were to exceed Rs. 15,00,000. Cost of borrowed capital are indicated as follows :

(i)	*Up to Rs. 5,00,000*	:	*12% p.a.*
(ii)	*Between Rs. 5,00,000 and Rs. 12,50,000*	:	*16% p.a.*
(iii)	*Between Rs. 12,50,000 and Rs. 20,00,000*	:	*20% p.a.*

Assume a tax rate of 50%, calculate the earnings per share and + *indicate the scheme that would yield the maximum EPS.*

[BU, B.Com., April '98]

Solution :

DETAILS OF EPS UNDER DIFFERENT FINANCIAL PLANS

Particulars	*F. Plan 1 Rs.*	*F. Plan 2 Rs.*	*F. Plan 3 Rs.*
EBIT	5,00,000	5,00,000	5,00,000
Less: Interest[1]	48,000	1,72,000	3,10,000
EBT	4,52,000	3,28,000	1,90,000
Less : Tax @ 50%	2,26,000	1,64,000	95,000
EAT	2,26,000	1,64,000	95,000
No. of Equity Shares[2]	50,000	30,000	16,000
EPS	4.52	5.46	5.93

Financial plan 3 is advisable because it yields maximum returns to Equity shareholders.

(1) Working Note: Interest

Financial Plan 1 : Since the debt is Rs. 4,00,000 applicable rate of interest is $= 4,00,000 \times \frac{12}{100} = 48,000$

Financial Plan 2 : Since the debt is Rs. 12,00,000, the interest rate applicable is :

(a)	@ the rate of 12% on Rs. 5,00,000	=	60,000
(b)	@ the rate of 16% on Rs. 7,00,000	=	1,12,000
	(Rs. 12,00,000 – 5,00,000 = 7,00,000)	=	1,72,000

Financial Plan 3 : Since the debt is Rs. 20,00,000, the interest rate applicable is :

(a)	@ 12% interest on Rs. 5,00,000	=	60,000
(b)	@ 16% interest on Rs. 12,50,000	=	2,00,000
(c)	@ 20% interest on Rs. 2,50,000	=	50,000
	(20,00,000 – 12,50,000 – 5,00,000 = 2,50,000)	=	3,10,000

Assumption : "Interest rate charged on borrowings is based on slab rates."

(2) Calculation of Number of Equity Shares

Particulars	*F. Plan 1 Rs.*	*F. Plan 2 Rs.*	*F. Plan 3 Rs.*
Total Capital :	24,00,000	24,00,000	24,00,000
Less : Debt Capital:	4,00,000	1,200,000	20,00,000
Equity Capital :	20,00,000	12,00,000	4,00,000
Market price per share applicable	40	40	25
∴ No of Equity shares =	$\frac{20,00,000}{40}$	$\frac{12,00,000}{40}$	$\frac{4,00,000}{25}$
	50,000	30,000	16,000

Illustration 15 :

Consider the following data of XYZ Ltd.

Selling price	=	*Rs. 60*
Variable cost	=	*Rs. 30*
Fixed cost	=	*Rs. 3,20,000*
Interest burden	=	*Rs. 1,00,000*
Tax rate	=	*50%*
Preference dividend	=	*Rs. 50,000*

Calculate the three types of leverages if the number of units sold is 15,000 units.

Solution :

MASTER TABLE

Sales = 15,000 × Rs. 60	=	9,00,000
V. Cost = 15,000 × 30	=	4,50,000
Contribution	=	4,50,000
Less : Fixed cost	=	3,20,000
EBIT	=	1,30,000
Less : Interest	=	1,00,000
EBT	=	30,000

(A) Financial Leverage $= \dfrac{\text{EBIT}}{\text{EBT}} = \dfrac{1{,}30{,}000}{30{,}000} = 4.33$ times

(B) Operating Leverage $= \dfrac{\text{Contribution}}{\text{EBIT}} = \dfrac{4{,}50{,}000}{1{,}30{,}000} = 3.46$ times

(C) Combined Leverage $= \dfrac{\text{EBIT}}{\text{EBT}} \times \dfrac{\text{C}}{\text{EBIT}}$

$$= \frac{1{,}30{,}000}{30{,}000} \times \frac{4{,}50{,}000}{1{,}30{,}000}$$

$$= \frac{4{,}50{,}000}{30{,}000} = 15 \text{ times}$$

$$\text{FL} \times \text{OL} = 4.33 \times 3.46 = 15 \text{ times}$$

Illustration 16 :

It is proposed to start a business requiring a capital of Rs. 10,00,000 and an assured return of 20% on investment. Calculate the EPS if

(i) The entire capital is raised by means of Rs. 100 equity shares.

(ii) If 50% is raised from equity shares and 50% capital is raised by means of 10% debentures: Assume tax rate as 50%.

Solution:

Financial Plan 1 : Entire capital is raised by means of Rs. 100 equity shares :

Return on Investment or Operating Profit

		Rs.
$\frac{20}{100} \times 10,00,000$	=	2,00,000
Less : Income Tax 50%	=	1,00,000
Earnings Available to Equity shareholders	=	1,00,000

$$\text{EP} = \frac{\text{E A E S H}}{\text{No. of E. Shares}} = \frac{\frac{1,00,000}{10,00,000}}{100} = \frac{1,00,000}{10,000}$$

$$= \text{Rs. } 10.00$$

Financial Plan 2 : If 50% is raised from equity and 50% capital is raised by means of 10% debentures.

			Rs.
Return on Investment (EBIT)	$10,00,000 \times \frac{20}{100}$	=	2,00,000
Less : Interest on debentures	$50,00,000 \times \frac{10}{100}$	=	50,000
EBT		=	1,50,000
Less : Tax @ 50%		=	75,000
Earnings Available to Equity Shares		=	75,000

$$\text{EPS} = \frac{\text{E A E S H}}{\text{No. of E. Shares}} = \frac{\frac{75,000}{5,00,000}}{100} = \frac{75,000}{5,000}$$

$$= \text{Rs. } 15.00$$

Hence Financial plan - 2 is preferred.

Illustration 17 :

The following data are available for X Ltd.

Selling price per unit	=	*Rs.*	*120*
Variable cost per unit	=	*Rs.*	*70*
Total fixed cost	=	*Rs.*	*2,00,000*

(a) What is the operating leverage when X Ltd. produces and sells 7000 units?

(b) What is the percentage change in EBIT if output is increased by 10%?

Solution:

(a) At 7,000 units :

MASTER TABLE

			Rs.
Sales = 7,000 × Rs. 120	=		8,40,000
Less : Variable cost	=	7,000 × 70 =	4,90,000
Contribution	=		3,50,000
Less : Fixed cost	=		2,00,000
EBIT	=		1,50,000

$$\text{Operating Leverage} = \frac{\text{Contribution}}{\text{EBIT}} = \frac{3{,}50{,}000}{1{,}50{,}000}$$

$$= 2.33 \text{ times}$$

(b) At 10% increase in sales

MASTER TABLE

		Rs.
Sales = $7{,}000 + 7{,}000 \times \frac{10}{100}$, $7{,}000 + 700 = 7{,}700 \times 120$	=	9,24,000
Less : Variable cost 7,700 × 70	=	5,39,000
Contribution	=	3,85,000
Less : Fixed cost	=	2,00,000
EBIT	=	1,85,000

$$\text{Percentage change in EBIT} = \frac{\text{New EBIT} - \text{Old EBIT}}{\text{Old EBIT}} \times 100$$

$$= \frac{1{,}85{,}000 - 1{,}50{,}000}{1{,}50{,}000} \times 100$$

$$= \frac{35{,}000}{1{,}50{,}000} \times 100 = 23\%$$

Illustration 18 :

The installed capacity of a factory is 700 units. The actual capacity is 500 units. Selling price per unit is Rs. 10 variable cost is Rs. 6 per unit. Calculate the operating leverage in each of the following situations :

(i)	*when fixed costs are*	*Rs. 500*
(ii)	*when fixed cost are*	*Rs. 1100*
(iii)	*when fixed cost are*	*Rs. 1500*

[BBM, B.U., April '98]

Solution:

(i) When fixed costs are : Rs. 500

MASTER TABLE

		Rs.
Sales = 500 × 10		5,000
Less: Variable cost = 500 × 6	=	3,000
Contribution	=	2,000
Less: Fixed cost	=	500
EBIT	=	1,500

$$\text{Operating Leverage} = \frac{\text{Contribution}}{\text{EBIT}} = \frac{2{,}000}{1{,}500}$$

$$= 1.33 \text{ times}$$

(ii) When fixed cost are : Rs. 1100

MASTER TABLE

		Rs.
Sales = 500 × 10	=	5,000
Less: Variable cost = 500 × 6	=	3,000
Contribution	=	2,000
Less: Fixed cost	=	1,100
EBIT	=	900

$$\text{Operating Leverage} = \frac{\text{Contribution}}{\text{EBIT}} = \frac{2{,}000}{900}$$

$$= 2.22 \text{ times}$$

(iii) When fixed cost are : Rs. 1500

		Rs.
Sales = 500 × 10	=	5,000
Less: Variable cost = 500 × 6		3,000
Contribution	=	2,000
Less: Fixed cost	=	1,500
EBIT	=	500

$$\text{Operating Leverage} = \frac{\text{Contribution}}{\text{EBIT}} = \frac{2{,}000}{500}$$

$$= 4 \text{ times}$$

Illustration 19 :

Determine the EPS of a company which has operating profit (EBIT) of Rs. 2,00,000. Its capital structure consists of the following securities :

	Rs.
10% Debentures	*6,00,000*
12% Preference shares	*1,00,000*
Equity shares of Rs. 100 each	*4,00,000*

The company is in the tax bracket of 50%.

(a) Determine the Company's EPS.

(b) Determine the percentage change in EPS associated with 30% increase and 30% decrease in EBIT.

(c) Determine the degree of Financial Leverage.

Solution:

Earnings per Share :		Rs.
Earning before Interest and Tax	=	2,00,000
Less : Interest on Debentures 6,00,000 × $\frac{10}{100}$	=	60,000
EBT	=	1,40,000
Less : Tax @ 50%	=	70,000
EAT	=	70,000
Less : Preference Dividend 1,00,000 × $\frac{12}{100}$		12,000
EAESH	=	58,000

$$\text{EPS} = \frac{\text{E A E S H}}{\text{No. of E. Shares}} = \frac{58,000}{\frac{4,00,000}{100}} = \frac{58,000}{4,000}$$

= Rs. 14.50

(b) EPS @ 30% increase and 30% decrease in EBIT.

		30% Decrease in EBIT Rs.	*30% Increase in EBIT Rs.*
(i) 2,00,000 + $\frac{30}{100}$ × 2,00,000	=		2,60,000
(ii) 2,00,000 − $\frac{30}{100}$ × 2,00,000	=	1,40,000	
Less: Interest 6,00,000 × $\frac{10}{100}$	=	60,000	60,000

EBT	=	80,000	2,00,000
Less: Tax @ 50%	=	40,000	1,00,000
EAT	=	40,000	1,00,000
Less: Preference dividend $1,00,000 \times \frac{12}{100}$	=	12,000	12,000
EAESH	=	28,000	88,000
$\text{EPS} = \frac{\text{E A E S H}}{\text{No. E. Sh.}}$	=	$\frac{28,000}{\frac{4,00,000}{100}}$	$\frac{88,000}{\frac{4,00,000}{100}}$
	=	7.00	22.00

$$\text{Percentage change in EPS} = \frac{\text{Difference between two EPS}}{\text{Old EPS}}$$

$$\left(\frac{22-7}{7}\right) \times 100 = \frac{15 \times 100}{7} = 214\%$$

***(iii)* Financial Leverage:**

(i) @ Rs. 2,00,000 EBIT =

Financial Leverage $= \frac{2,00,000}{1,40,000} = \frac{\text{EBIT}}{\text{EBT}}$

$= 1.43$ times

(ii) @ 30% decrease in EBIT

Financial Leverage $= \frac{\text{EBIT}}{\text{EBT}} = \frac{1,40,000}{80,000}$

$= 1.75$ times

@ 30% increase in EBIT

Financial Leverage $= \frac{\text{EBIT}}{\text{EBT}} = \frac{2,60,000}{2,00,000}$

$= 1.33$ times

Illustration 20 :

Calculate the Operating Leverage, Financial Leverage and Combined Leverage. Also determine the additional sales to double its EBIT.

COST DETAILS

Sales	*800 units*
Selling price	*Rs. 10 per unit*
Variable cost	*Rs. 5 per unit*
Fixed cost	*Rs. 25,000*
Interest burden =	Rs. 10,000

Solution:

MASTER TABLE

		Rs.
Sales = 8,000 × 10	=	80,000
Less: Variable cost = 8,000 × 5	=	40,000
Contribution	=	40,000
Less: Fixed cost	=	25,000
EBIT	=	15,000
Less: Interest	=	10,000
EBT	=	5,000

(A) Financial Leverage

$$= \frac{\text{EBIT}}{\text{EBT}}$$

$$= \frac{15{,}000}{5{,}000} = 3 \text{ times}$$

(B) Operating Leverage

$$= \frac{\text{Contribution}}{\text{EBIT}}$$

$$= \frac{40{,}000}{15{,}000} = 2.67 \text{ times}$$

(C) Combined Leverage

$$= \frac{\text{EBIT}}{\text{EBT}} \times \frac{\text{Contribution}}{\text{EBIT}}$$

$$= \frac{15{,}000}{5{,}000} \times \frac{40{,}000}{15{,}000}$$

$$= \frac{40{,}000}{5{,}000} = 8 \text{ times}$$

Or

$$\text{OL} \times \text{FL} = 3 \times 2.67 = 8 \text{ times}$$

(D) Desired Sales to double EBIT

$$= \frac{\text{Fixed cost + Desired profit}}{\text{P/v Ratio or Contribution Sales Ratio}}$$

$$\therefore \text{P/v ratio} = \frac{40{,}000}{80{,}000} \times 100 = 50\%$$

$$\text{Desired EBIT} = \frac{25{,}000 + 2(15{,}000)}{.50} = \frac{55{,}000}{.50}$$

∴ Company has to increase its sales up to Rs. 1,10,000 to earn EBIT of Rs. 30,000.

Illustration 21 :

Pavan Ltd. has a capital of Rs. 100,00,000. The EBIT are Rs. 20,00,000. What would be its financial leverage (DFL)? Assuming the EBIT being Rs. 15,00,000 and Rs. 25,00,000. How would EPS be affected? Assume a Tax rate of 50% and equity share value is Rs. 10 each.

Solution :

Master Table to Calculate EPS & DFL

	Present	*EBIT* *EBIT*	*EBIT*
EBIT	20,00,000	15,00,000	25,00,000
Less : Int.	—	—	—
EBT	20,00,000	15,00,000	25,00,000
Less : Tax 50%	10,00,000	7,50,000	12,50,000
EAT	10,00,000	7,50,000	12,50,000
No. of Equity Shares	$\frac{100,00,000}{10}$	$\frac{100,00,000}{10}$	$\frac{100,00,000}{10}$
	1,00,000	1,00,000	1,00,000
EPS =	$\frac{10,00,000}{10,00,000}$	$\frac{750,000}{10,00,000}$	$\frac{12,50,000}{10,00,000}$
=	1.00	0.75	1.25
Percentage change in EPS	—	–25%	+ 25%
Percentage change in EBIT	—	–25%	+25%
$\text{DFL} = \frac{\text{\% change in EPS}}{\text{\% change in EBIT}} =$		$\frac{-25}{-25} = 1$	$\frac{+25}{+25} = 1$

POINTS TO REMEMBER

Capital Structure:

(a) Only through Equity

(b) Equity + Debentures

(c) Equity + Debentures + Preference Shares

(d) Equity + Debentures + Preference Shares + Fixed Deposits + Term Loan.

Capitalisation: Total Value of all types of securities

Capital Structure: Total composition of securities of capitalisation

Financial Structure: Total combination of both long term and short term sources of funds.

Determinants of Capital Structure:

External Factors:	*Internal Factors:*
Size of the company.	Financial Leverage
Nature of the industry Investors	Risk
Investors	Growth and Stability
Cost of Floatation	Retaining Control.
Legal Requirement	Cash flows.
Period of finance	Flexibility.
Level of Interest rate	Purpose of finance.
Level of business activity	Asset Structure.
Availability of funds	
Taxation policy	
Level of Stock Prices	

Financial Leverage:	It refers to the use of fixed charges securities in the capitalisation of a company to produce more gains for the equity share holders.
Operating Leverage:	It is defined as the ability of a company to use operating costs to increase the effect of changes in sales on its operating profits.
Combined Leverages:	It is the combination of both financial and operating leverage.
Financial Risk:	Risk associated with debt in the Capital Structure.
Business Risk:	Business risk is related to the investment decisions of a business concern.

QUESTIONS
PART - A

(Each question carries 2 marks)

1. What do you mean by Capital Structure?
2. What do you mean by Financial Leverage? **(B.U., Apr. '99)**
3. What are the methods of Issues of shares?
4. What do you mean by Business risk?
5. What do you mean by Financial risk?
6. What do you mean by Combined Leverage?
7. Give the meaning of the term D:E ratio?
8. What is the significance of Financial leverage?

PART - B

(Each question carries 8 marks)

1. Examine the significance of operating and financial leverage in financial management of a firm.
2. Between equity shares and debentures which is preferable for raising additional long-term capital.
3. A firm has sales of Rs. 10,00,000, variable cost Rs. 7,00,000 and fixed costs of Rs. 2,00,000 and debt of Rs. 5,00,000 at 10% rate of interest. What are the operating, financial and combined leverages?
4. X Co Ltd., has equity share capital of Rs. 10,00,000 divided into shares of Rs. 100 each. It wishes to raise further Rs. 5,00,000 for modernisation plans. The company plans the following schemes.
   (a) All Equity Shares;
   (b) 50% in Equity shares of Rs. 100 each, 50% debt @ 10%
   (c) All debt at 15% interest.

   The company's estimated EBIT are Rs. 2,00,000. The tax is assured to be 50%. Calculate EPS. Comment on the combination of Capital Structure.
5. If debt is cheaper than equity, why do companies not finance their assets with 80 or 90 percent debt ratio? Analyse.
6. Explain any four major sources of long term funds?
7. How do the considerations of control and size affect the capital structure decision of the firm?

PART - C

(Each question carries 15 marks)

1. Explain the factors that influence the Capital Structure.
2. Explain the different sources of funds.
3. Write an analytical note on: *(a)* Equity Shares; *(b)* Debentures; *(c)* Ploughing back of profits.
4. The following is the balance sheet of a company.

BALANCE SHEET

Liabilities	*Rs.*	*Assets*	*Rs.*
Equity Share Equity		Fixed Assets:	
6,000 Share of Rs. 10 each	60,000	Rs. 2,00,000	
10% Debt	80,000	*Less:* Depreciation	
Reserves & Surplus	20,000	Rs. 50,000	1,50,000
Sundry Creditors	30,000	Sundry Debtors	30,000
Bills Payable	10,000	Bill Receivable	15,000
		Cash at Bank	5,000
Total	2,00,000	Total	2,00,000

The company's total assets turnover ratio is 3. Its fixed operating costs are Rs. 1,00,000 and its variable cost ratio is 40%. The income tax rate is 50%.

(1) Calculate all the three types of Leverages.
(2) Determine the likely level of EBIT if EPS is Re. 1

5. X Ltd., is capitalised with Rs. 10,00,000 divided into 1,00,000 equity shares of Rs. 10 each. The management desires to raise another Rs. 10,00,000 to finance a major expansion programme.
   There are four possible financing plans:
   (a) All Equity Shares.
   (b) Rs. 5 lakhs is equity shares and Rs. 5 lakhs in debentures carrying 10% interest.
   (c) Rs. 5 lakhs in equity shares and Rs. 5 lakhs in preference shares carrying 10% dividend.
   The existing EBIT amount of Rs. 1,20,000 p.a.
   (i) You are required to calculate earning per equity share under cash of the level of EBIT is doubled.
6. Explain the Merits and Demerits of different sources of long term funds.
7. It is proposed to start a business requiring a capital of Rs. 20,00,000 and an assured return of 20% on investment. Calculate EPS if;
   (a) The entire amount through equity capital
   (b) If 50% is raised through the Debt @10% interest and 50% through equity capital.
   (c) If all the amount is raised through debt @12% interest.
   (d) If 25% is raised through equity and 75% is raised through the debt at 10% interest.
8. Calculate degree of operating, financial and combined leverage from the following data.
   Sales 2,00,000 units @ Rs. 4/- per unit @ Rs. 2.50 per unit Fixed Cost Rs. 1,50,000; Interest charges Rs. 10,000
9. Calculate the operating, financial and combined leverage from the following data.
   Interest Rs. 5,000; Sales Rs. 75,000; Variable Cost Rs. 30,000; Fixed Cost Rs. 20,000
10. ABC Ltd., has an average selling price of Rs. 12 per unit. Its variable unit cost are Rs. 8 and fixed cost amounts to Rs. 1,50,000. It finance all its assets by equity funds. It pays 50% tax on its income. XYZ Ltd., is identical to ABC Ltd., except in respect of the pattern of financing. The later finances its assets 50% by equity and 50% by debt, the interest on which amounts Rs. 25,000.
11. NEKO Ltd. has a capital of Rs. 50,00,000. The EBIT are Rs. 10,00,000. What would be its financial leverage (DFL)? Assuming the EBIT being Rs. 7,50,000 and Rs. 12,50,000, how would the EPS be affected? Assume tax a rate of 50%. The equity share value of Rs. 10 each.

    (B.U. Apr. '99) (Refer Illustration 21)

    Answer DFL @ EBIT, 7,50,000 = 1
    DFL @ EBIT, 12,50,000 = 1

    Hint : $$\text{DFL} = \frac{\%\ \text{change in EPS}}{\%\ \text{change in EBIT}}$$

4

INVESTMENT DECISION

Investment Decisions — Factors Influencing the Investment Decision Methods of Investment Evaluation — Pay Back Period — Accounting Rate of Returns — NPV (Simple Problems)

INVESTMENT DECISION

Investment decision is concerned with allocation of funds. Since financial management deals with mobilisation and deployment of funds, equal importance must be given to both the functions. Funds are mobilised through long term, medium term and short term sources. Long term and medium term finance must be deployed on long term investment. The main aim of such investment *i.e.*, to get proper yield from the project, so that it can recover the cost associated with each source of funds. Equity has the cost of dividend and expectations of the shareholders, debentures has the cost of interest, preference shares has the cost of dividend. All these costs must be recovered through the judicious allocation of available funds. This is risky decision to be taken by managers as they have to forecast the anticipated profit which is based on several uncertainties. Thus, this is a decision based on risk and uncertainty. He has to evaluate the investment proposals in relation of their expected returns and risk to determine whether the investment is feasible or not. The process through which different projects are evaluated is known as 'Capital Budgeting.'

Capital budgeting is a financial management tool through which capital expenditure proposals are evaluated. The expenditure, risk and uncertainties that are associated with each proposal will be examined. The profit, cost and inflow of cash of the projects are compared and best projects are selected for the purpose on investment. This tool is used in a almost all the stages of business cycle. In the initial stages, a firm has to buy plant and machinery, at the growth stages, it requires funds or investments for diversification. Therefore, it is an on going process essentially needed in the process of financial management.

FACTORS INFLUENCING THE INVESTMENT DECISIONS

*1. **Availability of Funds:*** Funds are available in different sources. Equity capital, debentures and preference capital can be raised through the primary market. Term loans are available through commercial banks, financial institution and non-banking financial companies. The investment decisions are to be planned in such a manner, so that it can raise cheaper source of funds quickly. The expenses linked with each source also influence the total cost of funds. Ultimately project should have the target of recovering the cost of funds which always vary on the basis of its availability. Hence, investment decisions are influenced by availability of funds.

*2. **Structure of Capital:*** Financial structure or capital structure may contain only equity or both debt and equity. Equity capital has more cost and does not have the privilege of exploiting leverage. D : E ratio will offer the leverage benefits, through which a firm increases the returns. Thereby a firm can recover the investment quickly. Hence the composition of securities in the capital structure influences the investment decisions.

*3. **Taxation Policy:*** If the company prefers to enjoy the benefit of tax holiday, concessions in the sales tax, stamp duty, excise duties, direct subsidies, it has to choose the investment proposal judiciously. Investment made in the thrust areas will have more benefits (of these concessions) and helps the firm to recover the investment quickly. Therefore, finance manage has to consider taxation policy at the time of taking the decision in capital budgeting.

*4. **Government Policy:*** The industrial policy, foreign trade policies and finance policies of the government will have direct bearing on investment policies of a company. 'Make or buy' 'Delete or Continue' of the existing business lines are some of the decisions that are directly influenced by government polices. This has been practically experienced by the Indian firms after the introduction of liberalisation, privatisation and globalisation. Due to the stiff competition of the multinationals, many of Indian small scale industries were closed. The existing business undertaking are adopting strategic management to survive in the modern business environment. All these changes are to be noted while making investment decisions.

5. ***Lending Policies of the Financial Institutions:*** The polices with regard to various covenants of term loans, documentation, security, margin money, prime lending rate, general state of the economy, money supply etc. will have direct impact on the flow of funds or leading polices. A business firm which seeks financial assistance from these institutions have to carefully analyse the influences of each one and make appropriate decisions for the investments.

6. ***Immediate Need of the Project:*** Need of the project is another important factor that directly influence the investment decision. Some of the decisions of investment may not yield immediate returns, *e.g.* Investment decisions for expansion, diversification and on R/D definitely the areas of investment for long term. Hence, manager in charge of finance portfolio has to take proper care in analysing the need for the investment proposals. Any wrong decision taken by him at this stage will become too costly to the organisation.

7. ***Earnings:*** Earnings of the proposed project is also another important factor that influence the investment decision. If the earning capacity of the project is not good, it is not advisable on the part of the financial manager to take such decisions. Earnings can be measured with the minimum earnings or 'cut-off' point of the same firm or of the industry. If the estimated profits are below the cut-off rate and the industry or the firm, the investment may become useless. If on the other hand, the firm expects to earn more, *i.e.*, above the cut off point, the project will be economically viable and can be implemented. Thus profitability of the project also decides the investment.

8. ***Capital Return:*** It refers to the pay back of investment. The management, while taking an investment decision has to assess as to how soon it will get back its investment. The decision is influenced by the liquidity concept. If the cash flows are used for revenue expenditure and if left over, it takes longer period to recover the invested capital. Many at times, it directly affects the long term planning of a firm. Therefore, financial manager has to carefully evaluate the proposal at the time finalising the investment decisions.

9. ***Economic Value of the Project:*** The investment decision is also influenced by the economic value of the project. Economic value means, how best the project can cash inflows and outflows with the initial investment and satisfy the funds need of the project. As the project progresses, there will be a need for more funds and the project must be capable of running its activities mainly by the generated funds. Thus, economic value of the project also influences the investment decisions.

10. Working Capital: There are two types of working capital requirement arise in the industry *viz.* permanent working capital and variable working capital. Permanent working capital is that portion the capital which is permanently needed in the organisation to buy investors. This is more in case of sales oriented expansion. The requirement of this capital will be met by long term sources. Therefore financial manager has to consider working capital requirement of the firm finalising the investment decision.

11. Accounting Practices: While making an investment decision standard accounting practices have to be evolved. The accounting policies are different for different types of projects. The treatment of depreciation directly affect the cash inflows viz. the asset that has 100% to depreciation, 40% and 25% has to be carefully planned for availing financial assistance it may be financed through term loan, leasing and hire-purchase. each instrument will have different cash-inflows and tax commitment. The knowledge these helps the financial manager in making investment decisions.

Thus the investment decisions are governed by several factors discussed so far. It is mainly influenced by the factors like *(i)* the type of capital, *(ii)* capital cost *(iii)* sources of funds, like internal and external sources, *(iv)* the effect of the project on the capital structure, *(v)* the net additional working capital required, *(vi)* economic viability of the project how best the project can earn extra income to the firm, *(vii)* time value of money *(viii)* hurdles that may creep in while implementing the project, *(ix)* installation expenses etc.

12. Trends of Earnings: The profit or return on the investment are not constant for a business firm. As the business risk is associated directly with the profitability fluctuation in the earnings are normally seen from the project. It is the ardant duty of the financial manager to consider this fluctuating cash flows for the proposes of making investment decisions. It is the practical experience of many of the firm to have 'structured rental' or 'structured repayments' to repay the loan to the financial institution. (Matching the repayment instalments according to the cash inflows.)

CAPITAL BUDGETING

Capital project planning is the process by which companies allocate funds to various investment projects designed to ensure profitability and growth. Evaluation of such project involves estimating their future benefits to the company and comparing these with their costs. In a competitive economy, the economic viability and prosperity of a company depends upon the effectiveness and adequacy of a capital expenditure evaluation and control procedure. Decision in respect of acquisition of fixed assets is directly linked with profitability. Hence a scientific evaluation and control procedure is necessary condition to ensure judicious use of capital resources of a company.

> "Capital budgeting is defined as the firm's formal process for the acquisition and investment capital. It involves firm's decision to invest its current funds for addition, disposition, modification and replacement of fixed assets."
>
> "Capital Budgeting is long term planning for making and financing proposed capital outlays." — *Charles T. Horngreen.*
>
> "Capital Budgeting consists in planning development of available capital for the purpose of maximising the long term profitability of the concern." — *Lynch.*
>
> According to Oster Young — The main features of capital budgeting are: *(a)* Potentially large anticipated benefits *(b)* a relatively high degree of risk and *(c)* Relatively long time period between the initial outlay and the anticipated return.

Meaning of Capital Budgeting

After analysing the above definitions the meaning of the term capital budgeting is explained on the following lines: Capital budgeting refers to planning the deployment of available capital for the purpose of maximising the long term profitability of a firm. It is the firm's decision to invest its current funds most efficiently in long-term activities in anticipation of flow of future benefits over a series of years.

Capital Budgeting Involves

1. The search for new and more profitable investment proposals and 2. The making of an economic analysis to determine the profit potential of each investment proposal.

It is process by which available cash and credit resources are allocated among competitive long-term investment opportunities so as promote the greatest profitability of company over a period of time. If refers to the total process of generating, evaluating, selecting and follow up on capital expenditure alternatives.

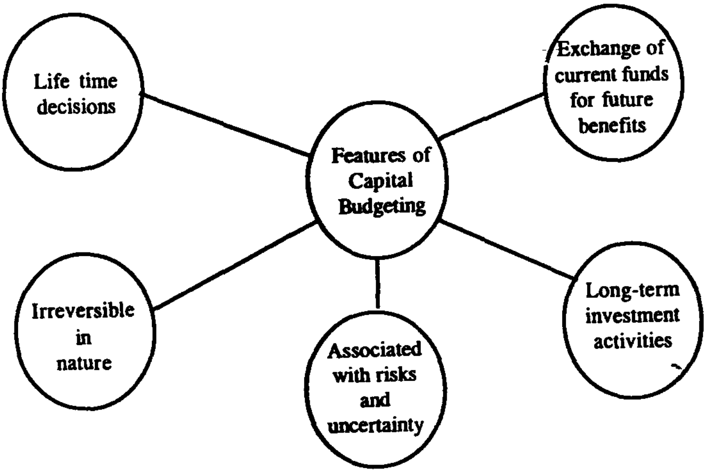


Fig. 4.1 Features of Capital Budgeting Decisions

Importance of Capital Budgeting

Capital budgeting decisions are most important business decisions. All types of capital investment are made only after evaluating its cost-benefit analysis. Following are the causes of its importance in management decisions.

1. The success and failure of business mainly depends on how the available resources are being utilised. Right decision for right expenditure or investment takes the business firm to a success. Bad decisions always aims at achieving the efficiency, reduction of costs and increase in margin. Therefore capital budgeting is one of the main tool of management.

2. All capital budgeting decisions are made for future period. The management has to have proper vision about their future plans. The expenditure or investment made today will assist the company to achieve the goals. Unwanted or unwarranted investments made today will keep the investment idle and in turn it looses its opportunity cost. Therefore only the essential and objective oriented investment are to be made. This can be achieved through capital budgeting.

3. All types of capital budgeting decisions are exposed to risk and uncertainty. It is practically a difficult task to the corporate manager to predict the changes in political and socio-economic field. Technological advancement is another factor which affect the capital budgeting decision. Hence, as far as possible these factors must be

analysed and expressed in quantitative terms to take comfortable decisions.

4. Capital budgeting decisions are irreversible in nature. Decision once made cannot be taken back or changed. The wrong capital investment decision keeps the company's assets illquid and unmarketable. Therefore, each investments are to be made carefully.

5. As the finance is the scarce resource to the business firm, it has to be utilised more judiciously. Capital rationing gives sufficient scope for the financial manager to evaluate different proposals and only viable project must be taken up for investment. This could be done by capital budgeting and capital rationing techniques of financial management.

6. The preliminary expenses or installation expenditure of a project has to be incurred by a business firm without anticipating immediate returns. On some occasion, due to unavoidable reasons, implementation of the project may require longer period. During this period market may experience inflation and escalation of prices of goods and services. All these adjustments are made only through Capital budgeting.

7. Capital budgeting has gained importance, because it offers effective control on cost of capital expenditure projects.

8. Capital budgeting helps the management to avoid over investment and under investments.

Capital Budgeting Process :

Capital Budgeting involves the following steps:

(i) Project Generation
(ii) Project Evaluation
(iii) Project Selection
(iv) Project Execution

(a) Project Generation : Generating the proposals for investment is the first process of capital budgeting. For an on going business concern, Investment proposals of various types may originate at different levels within a firm. The investment proposal may fall into one of the following categories:

(A) *(i)* Proposals to add new product to the product line, and
    (ii) Proposal to expand production capacity in existing product lines.

(B) Proposals to reduce the costs of the output of the existing products without altering the scale of operation.

Generation of above mentioned investment proposals may originate within the firm or outside the firm. Within the firm, it come either from top, middle or bottom management. Sometimes, ordinary workers can also be considered as the source for generating such ideas.

Sales campaigning, trade fairs people in the industry, R/D institutes,conferences and seminars will also offer wide variety of innovations on capital assets, that could be taken up for the investment. It may be for a plant or machinery or new product, or new production techniques. The healthy firm must always keep a watch as these development and must exploit such opportunities for the welfare of the business firm.

(b) Project Evaluation : Project evaluation involves two steps:

(a) Estimation of benefits and costs

(b) Selection of an appropriate criterion to judge the desirability of the project.

The benefits and costs of the projects is measured in terms of cash flows. The estimation of the cash inflows and cash outflows mainly depends on future uncertainties. The risk associated with each project must be carefully analysed and sufficient provision must be made for covering the different types of risks. The role of the financial manager is very crucial here because he has to consult and seek the opinion of the executives (production marketing and purchase) before making a final decision. Proper co-ordination must be established in evaluating such proposals. Many at times the suggestions made by production department may not be suitable to finance and purchase manager. Similarly proposal made by finance and purchase manager may not be relevant or suitable to production manager. Therefore, each proposal must be scrutinised on the basis of its merits. If needed, it is advisable to seek expertise advice on the matter. As far as possible, the criterion selected must be consistent with the firm's objective of maximising its market value. The technique of time value of money may come as handy tool in evaluating such proposals.

(c) Project Selection : No standard administrative procedure can be laid down for approving the investment proposal. The screening and selection procedures are different from firm to firm. In a real life situation all capital budgeting decisions are made by top management. However, the projects can scientifically be screened by middle level management in consultation with head of the finance department.

(d) Project Execution : Once the proposal for capital expenditure or investment is finalized, it is the duty of the finance manager to explore the different alternatives available for acquiring the funds. He has to prepare capital budget. he has to take sufficient care to reduce the weighted average cost of funds. The funds so mobilised must be carefully spent or deployed on capital assets or on the projects. For the effective control over the flow of funds, he has to prepare periodical reports and must seek prior permission from the top management. Systematic procedure should be developed to review the performance of projects during their life time and after completion. The follow-up, comparison of actual performance with original estimates not only ensures better forecasting but also helps in sharpening the techniques for improving future forecasts.

METHODS OF APPRAISAL OF CAPITAL BUDGETING OR METHODS OF INVESTMENT EVALUATION

As discussed earlier, the capital budgeting techniques or evaluation of investment proposals have considerably gained the importance. This is more true in the modern business environment. After the introduction of New Economic Policy, the environment in the industry and services sector have considerably changed. Number of mergers, acquisitions, joint venture and continuous innovation are being experience in the market. Therefore, it is very difficult to arrive at a decision for financing the project. It is absolutely essential for every business entity to make use of this scarce resource on the most profitable lines. Following are some of the important methods used in practice in evaluating the investment proposals.

There are many methods for evaluating or ranking the capital investment proposals. In all these methods, the capital investment proposals. In all these methods, the basic approach is to compare the investments in the project to the benefits derived therefrom.

These methods can be categorised as follows:

1. Traditional Methods :

(a) Pay back period method and

(b) Accounting rate of return method

2. Discounted Cash Flow Methods

(a) The net present value method

(b) Internal rate of return

(c) Profitability index method or benefit cost ratio method.

The usage of methods of evaluation of capital investments does not have uniformity. It differs from firm to firm. Large scale business undertakings may use all techniques for evaluating and comparing the projects. Smaller firms may use only one method. The selection of a particular method is mainly based on its merits and demerits and its relevance to the present circumstances.

Pay back period method: The term pay back period refers to the period in which the project will generate the necessary cash to recover the initial investment. It is a traditional, simple method of evaluating the projects. It does not take the effect of time value of money. It emphasises more on annual cash inflows, economic life of the project and the original investment. Cash inflows refers to profit before depreciation and after taxes. Formula: *(a)* If the annual cash inflows are uniform:

$$\text{Pay back Period} = \frac{\text{Original investment of the project}}{\text{Annual cash inflow and the project}}$$

The selection of the project is based an the earning capacity of a project. Here the financial manager's aims is to know how soon the original investments are recovered. During the process of comparison he always keeps firm's cut-off period of the proposals. If the pay back period is less than the cut-off such proposals are selected for investments. [cut-off rate=cost of funds or in terms of period, if a firms's cost of capital is 15%, pay back period= 100/15=6.6 years]

Merits

(1) It is a traditional and old method.
(2) It involves simple calculation.
(3) Selection or rejection of the project can be made easily.
(4) The results obtained under this method is more reliable.
(5) It is the best method for evaluating high risk projects.

Demerits

(1) It is based on the principle of 'rule of thumb'.
(2) It does not recognise the importance of 'Time Value of Money'.
(3) It does not consider the profitability of economic life of the project [earnings till pay back period of cash considered.]
(4) It does not recognises the pattern of cash flows and its timing.
(5) Pay back period concept does not reflect all the relevant dimensions of profitability.

Example: *Mohan and Co is considering the purchase of a machine. Two machines X and Y each costing Rs. 50,000 are available. Cash inflows are expected to be as under. Calculate pay back period.*

Year	*Machine X* *Rs.*	*Machine Y* *Rs.*
1	15,000	5,000
2	20,000	15,000
3	25,000	20,000
4	15,000	30,000
5	10,000	20,000

PAY BACK PERIOD FOR MACHINE X

Solution :

$$\text{Pay back Period} = \frac{\text{Original investment of the project}}{\text{Annual cash inflow}}$$

Note: The above formula is not suitable to find the pay back period. Since the annual cash inflow is not uniform. Therefore pay back period is calculated as under:

		Cumulative Cash inflow
1st year cash inflow	Rs. 15,000	Rs. 15,000
2nd year cash inflow	Rs. 20,000	Rs. 35,000

Is the third year cash inflow is Rs. 25,000 but, we need only Rs. 15,000 to recover. The original cost. Therefore,

$$\frac{15{,}000}{25{,}000} = 0.6 \text{ years}$$

Pay back period = 2.6 years

Pay back period for Machine Y

	Rs.	*Cumulative Cash inflow* *Rs.*
1st year cash inflow	5,000	5,000
2nd year cash inflow	15,000	20,000
3rd year cash inflow	20,000	40,000

In the fourth year cash inflow is Rs. 30,000. To recover the original cost Rs. 10,000 is needed Therefore,

Pay back Period = 3 years and 4 months.

Therefore machine X is preferred because P B P in only 2.6 years.

***Example:** A project requires an initial investment of Rs. 60,000 and yields an annual cash inflow of Rs. 20,000 for 8 years. The pay back period will be:*

$$\text{PBP} = \frac{\text{Original investment}}{\text{Annual cash inflow}} = \frac{60{,}000}{20{,}000} = 3 \text{ years}$$

(2) Pay back Profitability Method or Post Pay back Profitability Method: To remove the drawbacks of pay back period, post pay back profitability method was developed. Under this method, the cash inflow generated from a project during the economic life is taken into account whereas in pay back period the cash inflow were considered only to the extent of recovering the original investment. But in the practical situation, after the pay back period, a project or a machine is still capable of generating cash inflow. Therefore, to evaluate the project the entire amount of earning or cash inflows must be considered.

Formula:	*Amount Rs.*
Total cash flow generated during the economic life of a machine or a project	______
Less: Original investment	______
Post pay back profitability	______

Merits

(1) It is based on simple calculations.

(2) Less time consuming.

(3) It is easy to follow and even a non-financial executive can also understand the concept.

(4) It takes into account the earnings of the project of entire life.

Demerits

(1) It is also based on the principle of 'rule of thumb'.

(2) It doesn't consider the impact of Time Value of Money.

(3) It ignores depreciation.

Accept or Reject criterion: The pay back period can be used as an accept or reject criterion. It can also be used as a method of ranking projects. If the pay back period calculated for a project is less than the maximum pay back period set up by the management of the firm, it would be accepted. A project whose actual pay back period is more than what has been pre-determined by the management, will be rejected.

Example: *Mohan and Company is considering the purchase of a machine. Two machines X and Y each costing Rs 50,000 are available. Cash inflows expected to be as under. Calculate post pay back profitability.*

Year	*Machine X* *Rs.*	*Machine Y* *Rs.*
1	15,000	5,000
2	20,000	15,000
3	25,000	20,000
4	15,000	30,000
5	10,000	20,000

Solution :

Machine X

Total cash flow during the economic life of Machine X

(Rs. 15,000+Rs. 20,000+Rs. 25,000+Rs. 15000+Rs. 10,000)	=	Rs. 85,000
Less: Initial Investment/Original cost of Machine	=	Rs. 50,000
Post pay back profitability	=	Rs. 35,000

Machine Y

Total cash flow generated during the economic life of Machine Y

(Rs. 5,000+Rs. 15,000+Rs. 20,000+Rs. 30,000+Rs. 20,000)	=	Rs. 90,000
Less: Original investment initial investment	=	Rs. 50,000
Post pay back profitability	=	Rs. 40,000

Therefore Machine Y preferred to X, since post pay back profitability of Y in higher.

(3) Accounting Rate of Return Method

Accounting rate of return consider the earnings of the project of the economic life. This method is based on based on conventional accounting concepts. The rate of return is expressed as percentage of the earnings of the investment in a particular project. This method has been introduce to overcome the disadvantage of pay back period. The profits under this method in calculated as profit after depreciation and tax of the entire life of the project.

$$\text{Formula ARR} = \frac{\begin{array}{c}\text{Average annual income}\\ \text{after tax and depreciation}\end{array}}{\text{Initial investment}} \times 100$$

2. $$\text{ARR} = \frac{\text{Average Income (after tax and depreciation)}}{\text{Average investment}} \times 100$$

$$\text{where, Average investment} = \frac{\text{Original investment}}{2}$$

This method of ARR is not commonly accepted in assessing the profitability of capital expenditure. Because the method does not consider the heavy cash inflow during the project as the earnings will be averaged. The cash flow advantage by adopting different kinds of depreciation is also not considered in this method.

Accept or Reject Criterion: Under this method, all projects, having accounting rate of return higher than the minimum rate establishment by management will be considered and those having ARR less than the pre-determined rate. This method ranks a project as number one, if it has highest ARR, and lowest rank is assigned to the project with the lowest ARR.

Merits

(1) It is very simple to understand and use.

(2) This method takes into account savings over the entire economic life of the project. Therefore, it provides a better means of comparison of project than the pay back period.

(3) This method through the concept of "net earnings" ensures a compensation of expected profitability of the projects and

(4) It can readily be calculated by using the accounting data.

Demerits

(1) It ignores time value of money.

(2) It does not consider the length of life of the projects.

(3) It is not consistent with the firm's objective of maximising the market value of shares.

(4) It ignores the fact that the profits earned can be reinvested.

Example: *Determine the accounting rate of return from the following of he two machines X and Y.*

Particulars	*Machine X*	*Machine Y*
Original cost	Rs. 56,125	Rs. 56,125
Additional Investment in working capital	Rs. 5,000	Rs. 6,000
Estimated life in years	5 years	5 years
Estimated and salvage value	Rs. 3,000	Rs. 3,000
Income tax rate	55%	55%

Annual Estimated Income after depreciation and tax		
	Rs.	*Rs.*
1st year	3,375	11,375
2nd year	5,375	9,375
3rd year	7,375	7,375
4th year	9,375	5,375
5th year	11,375	3,375
Total	36,875	36,875
Depreciation has been charged on straight line basis.		

Solution:

Machine X

$$\text{ARR} = \frac{\text{Annual average net earnings}}{\text{Average investment}} \times 100$$

where, Average investment

$$= \frac{\text{Original investment} - \text{Scrap value}}{2} + \text{Additional working capital} + \text{scrap value}$$

$$= \frac{56{,}125 - 3{,}000}{2} + 5{,}000 + 3{,}000$$

$$= 26{,}563 + 8{,}000 = 34{,}563$$

$$\text{Annual average net earnings} = \frac{\text{Total income after depreciation and tax}}{\text{Estimated life of machine}}$$

$$= \frac{36{,}875}{5} = \text{Rs. } 7{,}375$$

$$= \frac{7{,}375}{34{,}563} \times 100 = 21.34\%$$

Machine Y

$$\text{ARR} = \frac{\text{Annual average net earnings}}{\text{Average Investment}} \times 100$$

where, Average Investment

$$= \frac{\text{Original investment} - \text{Scrap value}}{2} + \text{Additional working capital} + \text{scrap value}$$

$$= \frac{56{,}125 - 3{,}000}{2} + 6{,}000 + 3{,}000$$

$$= 26{,}563 + 9{,}000 = \text{Rs. } 35{,}563$$

$$\text{ARR} = \frac{\text{Annual average net earnings}}{\text{Average Investment}} \times 100$$

$$= \frac{7{,}375}{35{,}563} \times 100 = 20.74\%$$

As Machine X's ARR is higher, Machine X should be preferred.

Discounted Cash Flow Methods

Discounted cash flow method or time adjusted technique is an improvement over pay back method and ARR. An investment is essentially outflow of funds aiming at fair percentage of return in future. The presence of time as a factor in investment in fundamental for the purpose of evaluating investment. Time is a crucial factor, because, the real value of money fluctuates over a period of time. A rupee received today has more value than a rupee received tomorrow. In evaluating investment projects it is important to consider the timing of returns on investment. Discounted cash flow technique takes into account both the interest factor and the return after the payback period.

Discounted cash flow technique involves the following steps:

(a) Calculation of cash inflow and out flow over the entire life of the asset.

(b) Discounting the cash flows by a discount factor.

(c) Aggregating the discounted cash inflows and comparing the total so obtained with the discounted out flows.

DCF methods evaluating capital investment:

(a) The Net Present Value Method

(b) Internal Rate and Return Method

(c) Cost Benefit Ratio and Profitability Index

(a) Net Present Value Method

Net present value method recognises the impact of time value of money. It is considered as the best method of evaluating the capital investment proposal. It is widely used in practice. The cash inflow to be received at different periods of time will be discounted at a particular discount rate. (rate of return or interest rate). The present values of the cash inflow are compared with the original investment. The difference between the two will be used for accept or reject criteria. If the difference yields (+) positive value, the proposal is selected for investment. If the difference shows (-) negative values, the proposed project is rejected for investment.

Steps (1) An appropriate rate of interest should be selected to discount cash flows. Generally it is referred to the cost of capital.

(2) The present value of cash inflow will the calculated by using this discounted rate.

(3) The discounted cash inflow are used to find its difference with original investment or cash outflows.

Accept or Reject Criterion: Net present value is used as an accept or reject criteria. In case NPV is positive the project is selected for investment. If NPV is negative the proposal for investment is rejected in others woods:

If NPV > Zero — Accept
If NPV < Zero — Reject

Merits

(1) It recognises the time value of money.
(2) It considers the cash inflow of the entire project.
(3) It estimates the present value of their cash flows by using a discount rate equal to the cost of capital.
(4) It is consistent with the objective of maximising the welfare of owners.

The present value of one rupee received after a period of time at a particular rate of discount is calculated using the following formula:

$PV = \frac{1}{(1+i)^n}$; where i = Discount rate and n = No. of years after which the rupee is received.

For example: If discount factor (or cost of capital) is 8% and if one rupee is received after 1 year, the present value will be:

$$PV = \frac{1}{(1+0.08)^1} = \frac{1}{1.08} = 0.90259$$

For one rupee received after 2 years under the same conditions the present value will be:

$$PV = \frac{1}{(1+0.08)^2} = \frac{1}{(1.08)^2} = \frac{1}{1.1664} = 0.8573$$

For finding the present value cash inflow expected to be received for the next 6 years, the following calculation can be made.

Year cash	*Cash inflow Rs.*	*P.V. at one rupee at 8% discount rate*	*P.V. of Inflows*
1.	6,000	$\frac{1}{(1.08)^1}$ = 0.9259	5555 – 40

2.	6,000	$\frac{1}{(1.08)^2}$ = 0.8573	5143 – 80
3.	6,000	$\frac{1}{(1.08)^3}$ = 0.7938	4762 – 80
4.	6,000	$\frac{1}{(1.08)^4}$ = 0.7350	4410 – 80
5.	6,000	$\frac{1}{(1.08)^5}$ = 0.6806	4083 – 60
6.	6,000	$\frac{1}{(1.08)^6}$ = 0.6302	3781 – 20
		4.6228	27,736 – 80

Alternatively, since the cash inflow is the same throughout, the cash inflow can be multiplied with the total of present value of the rupee for 6 years to arrive at the present value cash inflows:

That is Rs 6000 × 4.6228 = Rs 27,736-80

Demerits

(1) NPV method is based on discount rate. In a real life situation, it is very difficult to find and understand the concept of cost of capital.

(2) It may not give reliable answers when dealing with alternative projects under the conditions of unequal lives of project.

(3) Decision arrived at may not be satisfactory, when the project being compared involve different amounts of investment.

Example:* *(1) Find out the NPV for a project which require an initial investment of Rs. 20,000 and which involves a net cash inflow of Rs 6,000 each year for 6 years. The cost of funds is 8%. There is no scrap value (P. V. of annuity of Rupee 1 for 6 year at 8% per annum is Rs 4.623)

Solution:

	Rs.
Present value of cash inflow: 6000 × 4.623	27,738
Less: Initial cash outlay	20,000
Net Present value	7,738

Example:* *(2) The Syntax Co Ltd is planning to purchase a machine. Two alternative machines are selected for evaluation each costing Rs. 3,00.000. The cash inflow are expected to be as follows.

Year	*Cash inflow*	
	Machine X *Rs.*	*Machine Y* *Rs.*
1	20,000	40,000
2	65,000	1,10,000
3	90,000	1,20,000
4	1,50,000	1,40,000
5	1,75,000	2,00,000

The company's expected rate of return is 10%. Evaluate the profitability of two machines by taking the present value at 10%. The present value of Rs. 1 @ 10%

Year	*Discount Factor*
1	.909
2	.826
3	.751
4	.683
5	.621

Solution:

STATEMENT SHOWING THE PRESENT VALUE OF CASH INFLOW

Machine X						*Machine Y*
Year	*Discount factor 10%*	*Cash inflow* Rs.	*Present value of cash inflow* Rs.	*Discount factor 10%*	*Cash inflow* Rs.	*Present value of cash inflow* Rs.
1.	.909	20,000	18,180	.909	40,000	36,360
2.	.826	65,000	53,690	.826	1,10,000	90,860
3.	.751	90,000	67,590	.751	1,20,000	90,120
4.	.683	1,50,000	1,02,450	.683	1,40,000	95,620
5.	.621	1,75,000	1,08,675	.621	2,00,000	1,24,200
Present value cash inflow:			3,50,585			+4,37,160
Less: Initial outlay:			3,00,000			3,00,000
Net present value			+50,585			+1,37,160

As the NPV for machine Y is more it is suggested to buy machine Y.

(*b*) Internal Rate of Return Method

Internal rate of return is that rate at which the sum of discounted cash inflows equals the sum of discounted cash outflows. It is that rate at which the net present value of the investment is zero. In other words, it is the rate of discount which reduces the net present value of an investment to zero. It is called internal rate because it depends mainly on the outlay and proceeds associated with the project and not on any rate determined outside the investment. This method was advocated by Joel Dean, in which the magnitude and timings of cash flows has been mainly considered. This method is also known as:

(a) Marginal efficiency of capital

(b) Rate of return over cost

(c) Time adjusted rate of return

(d) Yield of an investment

Accept or Reject Criterion : Accept the project if the internal rate of return is higher than or equal to the minimum required rate of return. The minimum required rate of return is also known as cut off rate or firm's cost of capital.

A project shall be rejected if its IRR, is lower than the cut-off rate.

While evaluating two or more projects, project giving a higher internal rate of return would be preferred.

Calculation of Internal Rate of Return

IRR can be calculated by locating the factor in Annuity Table (Annuity Table of Present Value of Re. 1 received Annually for N years).

$$\text{Factor} = \frac{\text{Original Investment}}{\text{Cash Flow per year}}$$

Example: *An equipment involves an initial investment of Rs. 6,000. The annual cash flow is estimated at Rs. 2,000 for 5 years. Calculate IRR.*

Solution :

In this case cash inflow is uniform for five years.

$$\text{Factor} = \frac{\text{Initial Investment}}{\text{Cash Flow per year}} = \frac{6{,}000}{2{,}000} = 3.$$

[Referring to the Annuity Table in the line of 5 years, the discount percentage lie between 18% (Rs. 3.127 present value of annuity of Re. 1) and 20% (Rs. 2.99 present value of annuity of Re. 1)]

STATEMENT OF PRESENT VALUE OF CASH INFLOWS

Year	*Cash Inflow Rs.*	*Discount Factor*	*PV of Cash Inflow at 18% Rs.*	*Discount Factor at 20%*	*PV of Cash Inflow at 20% Rs.*
1	2,000	0.847	1,694	0.833	1,666
2	2,000	0.717	1,436	0.694	1,388
3	2,000	0.609	1,218	0.579	1,158
4	2,000	0.516	1,032	0.482	964
5	2,000	0.437	0.874	0.402	804
	Total		6,254		5,980

IRR is calculated as follows :

$$\text{Lower trial rate} + \frac{\text{Difference between calculated present value and required net cash outlay}}{\text{Difference between value of Lower Trial and Higher Trial rate}} \times \text{Difference between LTR \& HT}$$

$$= 18 + \frac{6{,}252 - 6{,}000}{6{,}252 - 5{,}980} \times (20 - 18) = 18 + \frac{252}{272} \times 2$$

$$= 18 + 1.852 = 19.85\%$$

IRR can be calculated using the following formula :

$$\text{IRR} = \text{A} + \frac{\text{C} - \text{O}}{\text{C} - \text{D}} \times (\text{B} - \text{A})$$

Where, A = Discount factor of Lower trial rate
B = Discount factor of Higher trial rate
C = Present value of cash inflow at Lower trial rate
D = Present value of cash inflow at Higher trial rate
O = Original outlay/initial cash outlay.

Where Cash Inflows are not Uniform:

Where cash inflows are not uniform the IRR is ascertained by trial and error calculations. It is an attempt to arrive at the correct interest rate which equates the present value of cash inflows with the present value of cash outflows.

Example: *A company has to select one of the following projects:*

Cost	*Project X Rs.*	*Project Y Rs.*
Cash Inflows	11,000	10,000
1st year	6,000	1,000
2nd year	2,000	1,000
3rd year	1,000	2,000
4th year	5,000	10,000

Using IRR method, suggest which project is preferable.
Present value discount factor table:

Year	*Discounting factor at 10%*	*Discounting factor at 12%*	*Discounting factor at 15%*
1	0.909	0.893	0.870
2	0.826	0.797	0756
3	0.751	0.712	0.658
4	0.683	0.636	0.572

Solution:

In this problem annual cash inflows are not uniform. Hence trial and error method is used to arrive at IRR.

Step: I Calculation of Factor

$$\text{Factor} = \frac{\text{Original Investment}}{\text{Average cash flows per year}}$$

Factor, in case of Project X would be :

$$= \frac{11{,}000}{\frac{6000 + 2000 + 1000 + 5000}{4}} = \frac{11{,}000}{\frac{14{,}000}{4}}$$

$$= \frac{11{,}000}{3{,}500} = 3.1429$$

Factor, in case of Project Y would be :

$$= \frac{10{,}000}{\frac{1000 + 1000 + 2000 + 10000}{4}} = \frac{11{,}000}{\frac{14{,}000}{4}}$$

$$= \frac{10{,}000}{3{,}500} = 2.8571$$

Referring to the Annuity table in the line of 4 years, trial rate would be:

Project X---10%, Project Y----15%.

STATEMENT OF PRESENT VALUE OF CASH INFLOW AT 10%

Year	*Cash Inflow Rs.*	*Present Value Factor*	*Present Value of cash inflows*
1	6,000	0.909	5,454
2	2,000	0.826	1,652
3	1,000	0.751	751
4	5,000	0.683	3,415
		Total	11,272

Present value at 10% is Rs. 11,272, to arrive at the correct interest rate, we should use another trial rate which is higher than 10%.

STATEMENT OF PRESENT VALUE OF CASH INFLOW AT 12%

Year	Cash Inflow in Rs.	Discount Factor at 12%	Present Value of cash inflows in Rs.
1	6,000	0.893	5,358
2	2,000	0.797	1,594
3	1,000	0.712	712
4	5,000	0.636	3,180
		Total	10,844

Therefore IRR lies between 10% and 12%. Therefore, the exact IRR is,

$$\text{IRR} = A + \frac{C - O}{C - D} \times (B - A) = 10 + \frac{11{,}272 - 11{,}000}{11{,}272 - 10{,}844} \times (12 - 10)$$

$$= 10 + \frac{272}{428} \times 2 = 10 + 1.271 = 11.271\%$$

Project Y

STATEMENT OF PRESENT VALUE OF CASH INFLOW AT 15%

Year	Discounting Factor at 15%	Cash Inflows Rs.	Present Value of Cash Inflows Rs.
1	0.870	1,000	870
2	0.756	1,000	756
3	0.658	2,000	1,316
4	0.572	10,000	5,720
		Total	8,662

Present value of cash inflow at 15% is Rs. 8,662 (which is less than the cost). To arrive at the correct interest rate, we should use another trial rate which is less than 15%.

Make a trial with 12% Discount rate.

Year	Discounting Factor at 15%	Cash Inflows Rs.	Present Value of Cash Inflows Rs.
1	0.893	1,000	893
2	0.797	1,000	797
3	0.712	2,000	1424
4	0.636	10,000	6360
		Total	9474

Present value of cash inflow at 12% is Rs. 9,474 (which is again less than the cost). To arrive at the exact interest rate, we have to use another final rate which is less than 12%.

STATEMENT OF PRESENT VALUE OF CASH INFLOWS AT 10%

Year	*Discounting Factor at 15%*	*Cash Inflows Rs.*	*Present Value of Cash Inflows Rs.*
1	0.909	1,000	909
2	0.826	1,000	826
3	0.751	2,000	1,502
4	0.683	10,000	6,830
		Total	10,067

Present value at 10% is Rs. 10,067 (which is more than the cost). Present value at 15% is Rs. 8662. Hence, IRR lies in between 10% & 15%.

$$\text{IRR} = \text{A} + \frac{\text{C} - \text{O}}{\text{C} - \text{D}} \times (\text{B} - \text{A}) = 10 + \frac{10{,}067 - 10{,}000}{10{,}067 - 8{,}662} \times (15 - 10)$$

$$= \text{LTR} + \frac{\text{PV at } 10\% - \text{Original Investment}}{\text{PV at } 10\% - \text{PV at } 15} \times (\text{HTR} - \text{LTR})$$

$$= 10 + \frac{67}{1{,}405} \times 5 = 10 + \frac{335}{1{,}405} = 10 + 0.238 = 10.238$$

Therefore, Project X which has higher IRR should be preferred.

Merits of IRR Method

(1) It considers the time value of money.

(2) Calculation of cost of capital is not prerequisite for adopting IRR.

(3) IRR attempts to find the maximum rate of interest at which funds invested in the project could be repaid out of the cash inflows arising from the project.

(4) It is not in conflict with the concept of maximising the welfare of the equity shareholders.

(5) It considers cash flows throughout the life of the project.

Demerits:

(1) Computation of IRR is tedious and difficult to understand.

(2) Both NPV and IRR assume that the cash inflows can be reinvested at the discounting rate in the new projects. However, reinvestment of funds at the cut off rate is more

appropriate than at the IRR for ranking two or more projects.

(3) It may give results inconsistent with NPV method. This is especially true in case of mutually exclusive projects *i.e.*, projects where acceptance of one would result in the rejection of the other. Such conflict of result arises due to the following:

(a) Difference in cash outlays

(b) Unequal lives of projects

(c) Different pattern of cash flows.

COMPARISON OF NPV AND IRR METHOD

NPV Method	*IRR Method*
(1) Interest rate is known.	(1) Interest rate is to be calculated
(2) It involves computation of the amount that can be invested in a given projects so that the anticipated earnings will be sufficient to repay this amount with market rate of interest.	(2) It attempts to find out the maximum rate of interest at which funds are invested in the project. Earnings from the project in the form of cash flow will help us to get back the funds already invested.
(3) it assumes that the cash inflows can be remitted at the discounting rate in the new projects.	(3) It also assumes that the cash inflows can be reinvested at the discounting rate in the new projects.
(4) Re-investment is assumed to be at the cut-off rate.	(4) Reinvestment of funds is assumed to be at the IRR.

MISCELLANEOUS ILLUSTRATIONS

Illustration 1 :

1. A firm whose cost of capital is 10% is considering two projects X and Y, the details which are :

		Project X *Rs.*	*Project Y* *Rs.*
Investment		1,00,000	1,00,000
Cash Inflow :	1st year	20,000	45,000
	2nd year	30,000	40,000
	3rd year	40,000	30,000
	4th year	50,000	10,000
	5th year	60,000	8,000
	Total	2,00,000	1,33,000

Compute the net present value at 10% profitability index, and internal rate of return for the two projects separately, Project X by 20 & 29% and Project Y by 9 & 15%.

Use the following discount factor calculating IRR.

	Project X		*Project Y*		
Year	*20%*	*29%*	*10%*	*9%*	*15%*
1	0.833	0.775	0.909	0.917	0.870
2	0.694	0.601	0.826	0.842	0.750
3	0.579	0.466	0.751	0.772	0.658
4	0.483	0.361	0.683	0.708	0.572
5	0.402	0.280	0.621	0.650	0.497

Solution:

For present value factor, consult the value and compound factor Annuity tables.

Net Present Value Method

Year	*Project X*	*Project Y*	*PV factor 10%*	*Project X*	*Project Y*
	Rs.	*Rs.*		*Rs.*	*Rs.*
1	20,000	45,000	0.909	18,180	40,905
2	30,000	40,000	0.826	24,780	33,040
3	40,000	30,000	0.751	30,040	22,530
4	50,000	10,000	0.683	34,150	6,830
5	60,000	8,000	0.621	37,260	4,968
			TPVC inflow	1,44,410	1,08,273

Net Present Value of the project	*X*	*Y*
Total Present value if Cash inflows	Rs. 1,44,410	Rs. 1,08,273
Less: Original Investment	Rs. 1,00,000	Rs. 1,00,000
NPV at 10%	Rs. 44,410	Rs. 8,273

As NPV of project X is Rs. 44,410 which is higher than project Y, Investment on Project X should be considered.

***(b)* Profitability Index : Project X**

Total present value of cash inflow at 10% for Project X	=	Rs. 1,44,410
Project X : Original Investment	=	Rs. 1,00,000

$$PI = \frac{\text{Total Present value of cash inflows}}{\text{Original Investment}} = \frac{1,44,410}{1,00,000}$$

$$= 1.44 \text{ or } 14.4\%$$

Project Y:

Total value of cash inflow = Rs. 1,08,273

Original investment = Rs. 1,00,000

$$PI = \frac{1,08,273}{1,00,000} = 1.08 \text{ or } 10.8\%$$

Internal Rate Return Method

Project X

Year	*Cash inflow* *Rs.*	*Discount Factor at 29%*	*Discount Factor at 20%*	*PV cash inflow at 20% Rs.*	*PV cash inflow at 29% Rs.*
1	20,000	0.775	0.833	16.660	15,500
2	30,000	0.601	0.694	20,820	18,030
3	40,000	0.466	0.579	23,160	18,640
4	50,000	0.361	0.483	24,150	18,050
5	60,000	0.280	0.402	24,120	16,800

Total PV of cash inflow	=	1,08,910	87,020
Less: Original Investment	=	1,00,000	1,00,000
NPV at 20% & 29%	=	+ 8910	– 12,980

$$IRR = A + \frac{C - D}{C - D}(B \times A) = 20 + \frac{1,08,910 - 1,00,000}{1,08,910 - 87,020} \times (29 - 20)$$

$$= 20 + \frac{8,910}{21,890} \times 9 = 20 + \frac{80,910}{21,890} = 3.66$$

$$= 23.66\%$$

Statement of Present Values

Year	*Cash inflow*	*PV Factor 9%*	*Present value of Cash Inflows*	*PV Factor 5%*	*PV cash inflows*
	Rs.		*Rs.*		*Rs.*
1	45,000	0.917	41,265	0.870	39,150
2	40,000	0.842	33,680	0.750	30,000
3	30,000	0.772	23,160	0.658	19,740
4	10,000	0.708	7,080	0.572	5,720
5	8,000	0.650	5,200	0.497	3,976
			1,10,385		98,586

Net Present Value of Project:

Total PV of cash inflow	=	1,10,385	98,586
Less: Original Investment	=	1,00,000	1,00,000
NPV at 9% & 15%	=	+10,385	-1,414

$$\text{IRR} = A + \frac{C - D}{C - D}(B \times A)$$

$$= 9 + \frac{1{,}10{,}385 - 1{,}00{,}000}{1{,}10{,}385 - 98{,}586} \times (15 - 9)$$

$$= 9 + \frac{10;385}{11{,}799} \times 6 = .880 \times 6 = 14.28\%$$

Illustration 2 :

2. A project costs Rs. 16,000 and is expected to generate cash inflows of Rs. 4,000 each for 5 years. Calculate IRR.
Present value of Re. 1 at varying discount rate for a period of 5 years.

Year	*7%*	*8%*	*9%*
1	0.9346	0.9259	0.9174
2	0.8743	0.8573	0.8417
3	0.8163	0.7938	0.7722
4	0.7629	0.7350	0.7084
5	0.7130	0.6806	0.6499
Total =	4.1011	3.9926	3.8896

Solution:

The Annual cash inflow is uniform for 5 years.

Calculation of Factor:

$$\text{Factor} = \frac{\text{Original Investment}}{\text{Annual Cash Inflow}} = \frac{16{,}000}{4{,}000} = 4$$

Referring to the row of total given under the heading present value of Re. 1 at viewing discount rates for a period of 5 years. Factors 4 lies between 3.9926 and 4.1002. Therefore, IRR lies between 7% and 8%.

Present value of cash inflow at 7% Pv factor = 4,000 × 4.1002 = 16400.8

Present value of cash inflow at 8% PV factor = 4,000 × 3.9926 = 15970.4

$$\text{IRR} = A + \frac{C - D}{C - D}(B \times A) = 7 + \frac{16{,}400 - 16{,}000}{16{,}400 - 15{,}970} \times (8 - 7$$

$$= 7 + \frac{400}{430} \times 1 = 7 + 0.93 = 7.93$$

Illustration 3 :

		Rs.
The following information is available :		
Cost of the machine	=	*3,20,000*
Life of the project	=	*12 years*
Annual cash inflow	=	*56,000*
Average decrease in the value of the asset	=	*32,000*

Salvage value at the end of 1st year is reduced to Rs. 1,92,000. Calculate the bail-out pay back period.

Solution:

Hint : Bail-out pay back period is that period in which the salvage value of the machine of a particular year and cumulative cash-inflow of the machine on the same period equal to original investment of the machine.

Bail out pay back period = Cumulative cash inflow at a particular year + Salvage value at the end a year = Original Investment

Calculations of Cash Inflow with Salvage Value

Year	*Cash inflow Rs.*	*Cumulative cash inflow Rs.*	*Salvage value Rs.*	*Total Rs.*
1	56,000	56,000	1,92,000	2,48,000
2	56,000	1,12,000	1,60,000	2,72,000
3	56,000	1,68,000	1,28,000	2,96,000
4	**56,000**	**2,24,000**	**96,000**	**3,20,000**
5	56,000	2,80,000	6,40,000	3,44,000
6	56,000	3,36,000	32,000	3,68,000

Bail out period = 4 years, because at the end of the 4th year, Cumulative cash inflow plus Salvage value = Original Investment

Illustration 4 :

Calculate the payback period by taking into consideration of expected rate of return of 10% for a project that cost Rs. 7,00,000 the DF factor at 10% for different years are :

For 1st year – 0.909, 2 – 0.826, 3 – 0.751, 4 – 0.683, 5 – 0.620, 6 – 0.546, 7 – 0.513.

Annual cash inflows are :

1st year – Rs. 40,000, 2 – Rs. 1,50,000, 3 – Rs. 2,25,000, 4 – Rs. 3, 1-,000, 5 – Rs. 3,40,000, 6 – Rs. 1,50,000, 7 – Rs. 50,000.

Solution :

Year	*Cash Outflow* *Rs.*	*Discount Factor 10%*	*Discounted Cash inflow* *Rs.*	*Cumulative Discounted cash inflow* *Rs.*
1	40,000	0.909	36,360	30,360
2	1,50,000	0.826	1,23,900	1,54,260
3	2,25,000	0.751	1,68,975	3,23,235
4	3,10,000	0.683	2,11,730	**5,34,965**
5	3,40,000	0.620	2,10,800	7,45,765
6	1,50,000	0.564	84,600	8,30,365
7	50,000	0.513	25,650	8,56,015

Recovery of Original Investment :

$$\begin{array}{c} \text{Discounted} \\ \text{pay backaboveperiod} \end{array} = \begin{array}{c} \text{Up to the end of} \\ \text{4th year discounted} \\ \text{cumulative cash inflow} \end{array} + \begin{array}{c} \text{5th year} \\ \text{discounted} \\ \text{cash inflow} \end{array}$$

$$= 5{,}34{,}965 + \frac{1{,}65{,}035}{2{,}10{,}800} = 0.78$$

$$= 4.78 \text{ years}$$

Illustration 5 :

Bhagawat Electronics Ltd. is planning to introduce mechanisation to replace the labour the force. Two alternatives are available. Advise the management to select the machine under pay back period method.

	Machine X	*Machine Y*
Cost of the machine	*50,000*	*40,000*
Estimated life of the machines	*10 years*	*8 years*
Estimated scrap savings per year	*1,000*	*1,000*
Estimated cost of materials p.a.	*2,000*	*3,000*
Maintenance cost p.a.	*2,500*	*3,100*
Additional cost of supervision	*1,500*	*2,000*
Estimated savings in wager	*10,000*	*12,500*
Depreciation will be taken on straight line basis		
Assume a tax rate of 50%.		

Solution :

Details of Calculations of Cash Inflows

	Machine X	*Machine Y*
Savings in wager p.a.	10,000	12,500
Savings in scrap p.a.	1,000	1,000
Total savings	11,000	13,500
Less: Additional cost of materials	2,000	3,000
	9,000	10,500
Less: Additional cost of supervision	1,500	2,000
	7,500	8,500
Less: Additional cost of maintenance	2,500	3,100
Total savings	5,000	5,400
Less: Depreciation	5,000	5,000
Savings after Depreciation	0000	400
Less : Tax	—	200
Saving after Dep. & Tax	0000	200
Add: Depreciation	5,000	5,000
Total Annual Cash Inflow	5,000	5,200

$$\text{Pay back Period} = \frac{\text{Original Investment}}{\text{Annual Cash Inflow}}$$

$$= \frac{50{,}000}{5{,}000} \qquad \frac{40{,}000}{5{,}200}$$

$$= 10 \text{ years} \qquad 7.70 \text{ years}$$

Hence Machine Y is recommended, because the original investments can be recovered in 7.70 years.

Illustration 6 :

Mr. Pavan Kumar has to make a decision for his investment out of three alternatives. Advise him to select the project by using the following methods :

(1) *According to payback period.*
(2) *According to the life of the project in excess PBP.*
(3) *According to the total cash inflows of the projects.*
(4) *According to the cash inflows in excess of PBP.*

Details of the Project	Project A Rs.	Project B Rs.	Project C Rs.
Cost of the project	*50,000*	*75,000*	*1,00,000*
Life of the project	*10*	*15*	*20*
Profit after Depn. and Tax per year	*20,000*	*25,000*	*40,000*
Depreciation charged on Straight Line Basis. Tax rate applicable – 50%			

Solution :

Calculations of Annual Cash Inflows :

		Project A Rs.	*Project B Rs.*	*Project C Rs.*
Profit after Tax and Dep.	=	20,000	25,000	40,000
Add: Depreciation	=	5,000	5,000	5,000
Total Annual Cash Inflow	=	25,000	30,000	45,000
(a) PBP = $\frac{\text{Original Investment}}{\text{Annual Cash Inflow}}$	=	$\frac{50,000}{25,000}$	$\frac{75,000}{30,000}$	$\frac{1,00,000}{45,000}$
	=	2 yrs.	2.5 yrs.	2.22 yrs.
(b) Life of the project in excess of PBP.				
= Total life of the project – PBP	=	10-2	15-2.5	20-2.22
	=	8 yrs.	12.5 yrs.	17.78 yrs.
(c) Total cash inflow method :				
Annual cash inflow × Economic life of the project	=	10×25,000	15×30,00	20×45,000
	=	2,50,000	4,50,000	9,00,000
(d) Cash inflows in Excess of PBP				
= Total Cash Inflow		2,50,000	4,50,000	9,00,000
Less: Cash inflow @ PBP		50,000	75,000	99,900
		2,00,000	3,75,000	8,00,100

Suggestions :

(a) According to payback period, project A is preferred because, the cost of the project can be recovered within 2 years.

(b) The life of the project in excess of PBP of project 'C' is made. Hence it is recommended (17.78 yrs.).

(c) Considering the total cash inflows, project 'C' is recommended because it has highest Total cash inflow = Rs. 9,00,000.

(d) Considering the cash inflows in excess of PBP project 'C' is recommended, because it provides the excess cash inflow of Rs. **8,00,100**.

Illustration 7 :

M / s Shruthi Ltd. has the following details of the project.

Cost of the project	*Rs. 20,000*
Estimated life	*5 years*
Estimated Cash Inflows	*Rs. 6,000 p.a.*
Expected Rate of Return	*10%*

Expected rate of interest at which cash inflow will be re-invested.

Year end	*Rate of interest*
1	*8%*
2	*8%*
3	*8%*
4	*9%*
5	*9%*

Evaluate the above project by using Terminal value method.

Solution:

Under this method, the annual cash inflows are re-invested at different rates of interest and the total compounded value of such cash inflows are discounted at 10% @ the end of 5th year.

DETAILS OF CALCULATIONS OF COMPOUNDED CASH INFLOWS

Year	*Cash Inflows*	*Rate of interest of re-investment*	*No. of years of re-investment*	*Compound factor*	*Total compounded value of cash inflows*
(1)	(2) Rs.	(3)	(4)	(5)	(6) = 2×5 Rs.
1	6,000	8%	4	1,.360	8,160
2	6,000	8%	3	1.260	7,560
3	6,000	8%	2	1.166	6,996

4	6,000	9%	1	1.090	6,540
5	6,000	9%	0	1.000	6,000
					35,256

Present value of compounded value of cash inflow @ 10% for 5 years $= 35{,}256 \times \left(\frac{1}{(1.10)^5}\right)$

$= 35{,}256\ (.620)$

$= 21{,}884.50$

Suggestion : Since the present value of cash inflows are excess (21,884.50 – 20,000 = 1,884.50). The project is recommended for execution.

Illustration 8 :

Sunny Ltd. is planning to purchase a machine costing Rs. 5,00,000. Its estimated life is 5 years. The scrap value at the end of the 5th year is Rs. 50,000. The machine requires an additional investment of working capital of Rs. 1,00,000 which is recovered at the end of 5th year.

The company has the target return of 12% on capital and is in the tax bracket of 50%. Following are the details of profits before depreciation and tax:

Year end	*Profit before Dep. & Tax Rs.*
1	*1,00,000*
2	*1,50,000*
3	*2,00,000*
4	*2,25,000*
5	*2,50,000*

Evaluate the project by using NPV Method.

Solution :

Calculations of outflow of cash or original investment :

Cost of the machine	=	5,00,000
Add: Additional working capital	=	1,00,000
		6,00,000

Less: Recovery of salvage value = 28,409

$50{,}000\left(\frac{1}{(1.12)^5}\right)$

$50{,}000\ (.567)$

5,71,590

Less: Recovery of working capital = 56,700

$1{,}00{,}000\left(\frac{1}{(1.25)^5}\right)$

Present value of Cash Inflow = 5,14,890

DETAILS OF CALCULATION OF PRESENT VALUE OF CASH INFLOW

Year	*Profit before Dep. & Tax Rs.*	*Tax @ 50%*	*Cash Inflow*	*D.F. @ 12%*	*PV of Cash Inflows*
1	1,00,000	50,000	50,000	$\left(\frac{1}{(1.12)^1}\right) = .893$	44,650
2	1,50,000	75,000	75,000	$\left(\frac{1}{(1.12)^2}\right) = .797$	59,775
3	2,00,000	1,00,000	1,00,000	$\left(\frac{1}{(1.12)^3}\right) = .712$	71,200
4	2,25,000	1,12,500	1,12,500	$\left(\frac{1}{(1.12)^4}\right) = .636$	71,550
5	2,50,000	1,25,000	1,25,000	$\left(\frac{1}{(1.12)^5}\right) = .567$	70,875
					3,18,050

Present value = Total PV of Cash Inflow = 3,18,050

Less: Original Investment = 5,14,890

NPV = –1,96,840

Since the NPV of the machine is negative, the proposal is rejected.

Illustration 9 :

The following are particulars given for two firms :

Particulars	*Projects (Cash flows in Rs. 000's)*	
	A Ltd.	*B Ltd.*
Initial Investment	*500*	*900*
End of the 1st year	*100*	*1269*
2nd year	*200*	*864*
3rd year	*200*	*[-1305]*
4th year	*250*	*—*
NPV @ 25%	*[87.2]*	
NPV @ 20%	*[41.6]*	*1098*

Evaluate the projects by NPV and IRR methods.
Winning 15% and 20%
The Discount Factors are :

	15%	*20%*
First year	*0.870*	*0.833*
Second year	*0.756*	*0.694*
Third year	*0.658*	*0.579*
Fourth year	*0.572*	*0.482*

[BU, B.Com., April, 1998]

Solution:

Important Points to Note

(1) Figures in bracket indicates Negative NPV and Cash inflow.

(2) NPV of project A has already been given.

(3) You are ignore unwanted information.

Project A

NPV = *Total Present value of Cash Inflow* ....
Less: Original Investment ....

Table showing the details of calculation of PV of Cash Inflow

Years	*Cash inflows*	*DF @ 15%*	*PV of cash inflow*	*DF @ 20%*	*PV of cash inflows*
1	100	.870	87	.833	83
2	200	.756	151	.694	139
3	200	.658	132	.579	116
4	250	.572	143	.482	121
			513		459

(a) NPV @ 15% = TPVCI – O. Investment

= 513 – 500 = +13

NPV @ 20% = 459 – 500 = –41

(b) IRR $= A + \frac{C - O}{C - D}(B \times A)$

$= 15 + \frac{513 - 500}{513 - 459} \times (20 - 15)$

$= 15 + \frac{13}{54} \times 5$

$= 15 + \frac{65}{54}$

$= 15 + 1.20$

$=$ **16.20**

Project B

NPV = Total Present value of Cash Inflow ....

Less : Original Investment ....

Details of Calculation of PV of Cash Inflows

Year	*Cash inflow Rs.*	*DF @ 15%*	*PV CI @ 15%*	*DF @ 20%*	*PV CI @ 20%*
1	1269	.870	1104	.833	1057
2	864	.756	653	.694	600
3	-1305	.658	-859	.579	-756
4	—	—	—	.482	—
			+898		+901

(a) *NPV @ 15%* = *TPV CI – O.I*

= 898 – 900 = 2

NPV @ 20% = 901 – 900 = 1

(b) IRR $= A + \frac{C - O}{C - D} B \times A$

$= 15 + \frac{898 - 900}{898 - 901} \times 5$

$= 15 + \frac{2}{3} \times 5 = 15 + \frac{10}{3}$

$= 15 + 3.33$

$= \mathbf{18.33}$

Illustration 10 :

A project requires an investment of Rs. 6,00,000 and has the scrap value of Rs. 30,000 after 5 years. It net earnings after taxes are 1st year – Rs. 50,000, 2nd year – Rs. 70,000, 3rd year – 80,000, 4th year – 60,000 and 5th year – Rs. 10,000. Calculate the average rate of return on the investment.

Solution :

$$\text{ARR} = \frac{\text{Average Annual Profit}}{\text{Net Investment of the Project}} \times 100$$

Total Net Earnings after tax =

Rs. 50,000 + 70,000 + 80,000 + 60,000 + 10,000 = 2,70,000

$$\text{Average Profit} = \frac{\text{Total Profits}}{\text{Life of the Project}} = \frac{2,70,000}{5}$$

$$= 5,40,000$$

$$\text{ARR} = \frac{5,40,000}{(6,00,000 - 30,000)} \times 100 = \frac{54,000}{5,70,000} \times 100$$

$$= 9.47\%$$

Illustration 11 :

Following information is given to you. Evaluate the projects by using Return on Investment and NPV Methods.

		Project		
		A *Rs.*	*B* *Rs.*	*C* *Rs.*
Investment		*70,000*	*80,000*	*90,000*
Return at the end of	*1st year*	*40,000*	*50,000*	*55,000*
	2nd year	*30,000*	*25,000*	*40,000*
	3rd year	*20,000*	*25,000*	*20,000*

NPV may be calculated at 20% discount factor.

Solution :

(i) Return on Investments :

		A	B	C
	Total Returns of the project	90,000	1,00,000	1,15,000
	Less: Cost of the project	70,000	80,000	90,000
	Profit for three years	20,000	2,00,000	25,000
	Average profit per year (3)	$\frac{20,000}{3}$	$\frac{20,000}{3} =$	$\frac{25,000}{3}$
	=	6,667	6,667	8,333
	Return on Investment =	$\frac{6,667}{70,000} \times 100$	$\frac{6,667}{80,000} \times 100$	$\frac{8,333}{90,000} \times 100$
	$\frac{\text{Average Annual Profit}}{\text{Total Investment}} \times 100$			
	=	9.52	8.33%	9.25%

(ii) NPV Method :

Year	*Cash Inflow Rs.*	*A*		*B*		*C*	
		DF @ 20%	*PV CINF Rs.*	*Cash Inflow Rs.*	*PV CINF Rs.*	*Cash Inflow Rs.*	*PV CINF Rs.*
1	40,000	.833	33,320	50,000	41,650	55,000	45,815
2	30,000	.694	20,820	25,000	17,350	40,000	27,760
3	20,000	.578	11,560	25,000	14,450	20,000	11,560
TPVCINF			65,700		73,450		85,135
Less: O. Invst.			70,000		80,000		90,000
		-	4,300		-6,500		-4,865

Decisions:

(1) On the basis of Return on Investment Project A is preferred.

(2) On the basis of NPV, none of the project is good because all the project's NPV is negative.

Illustration 12 :

An automobile industry is considering investing in a project that cost Rs. 6,00,000. The estimated salvage value is zero, tax rate is 50%. The company uses straight line depreciation and the proposed project has cash flows before tax as follows :

Year	*Cash Flow before Tax* *Rs.*
1	*1,20,000*
2	*1,40,000*
3	*1,80,000*
4	*2,00,000*
5	*2,50,000*

Determining the following : *(a)* Pay back period *(b)* Average rate of return.

Solution :

***(a)* Pay back period :**

Year	*Cash inflow* *Rs.*	*Cumulative cash inflow* *Rs.*
1	1,20,000	1,20,000
2	1,40,000	2,60,000
3	1,80,000	4,40,000
4	2,00,000	6,40,000

$$\text{Pay back period} = 4 \text{ years} + \frac{(6{,}00{,}000 - 4{,}40{,}000)}{2{,}00{,}000} = 4 + \frac{1{,}60{,}000}{2{,}00{,}000}$$

= **4.80 years**

$$\textit{(ii)} \text{ Average Rate of Return } = \frac{\text{Average Income (PADAT)}}{\text{Average Investment}} \times 100$$

Calculations of Income:

Year	*Cash inflow* *Rs.*	*Depreciation* *Rs.*	*PADBT* *Rs.*	*Tax @ 50%* *Rs.*	*Profit after Tax & Dep.* *Rs.*
1	1,20,000	–1,20,000	—	—	—
2	1,40,000	1,20,000	20,000	10,000	10,000
3	1,80,000	1,20,000	60,000	30,000	30,000
4	2,00,000	1,20,000	80,000	40,000	40,000
5	2,50,000	1,20,000	1,30,000	65,000	65,000
					1,45,000

$$\text{Depreciation} = \frac{\text{Cost of the Project}}{\text{Economic Life}} = \frac{6{,}00{,}000}{5} = 1{,}20{,}000$$

$$\text{ARR} = \frac{\text{Average Net Income}}{\text{Average Investment}} \times 100$$

$$= \frac{\frac{1{,}45{,}000}{5}}{\frac{6{,}00{,}000}{2}} = \frac{29{,}000}{3{,}00{,}000} \times 100$$

$$= 9.67\%$$

Illustration 13 :

A project costs an initial investment of Rs. 40,000 and its expected to generate annual cash inflows of Rs. 16,000 for 4 years. Calculate IRR present value of Re. 1 at varying discount rate for a period of 4 years.

Year	*19%*	*20%*	*22%*
1	0.8403	0.8333	0.8196
2	0.7062	0.6944	0.6719
3	0.5934	0.5787	0.5507
4	0.4987	0.4823	0.4514
	2.6386	2.5887	2.4936

Solution:

$$\text{Factor} = \frac{\text{Original Investment}}{\text{Annual Cash Flow}} = \frac{40{,}000}{16{,}000} = 2.5$$

Referring to the Row of total given under the heading present value of Re. 1 at varying discount rate for a period of 4 years. Factor 2.5 lies between 2.4936 and 2.5887. therefore IRR lies between 20% and 22%.

Statement of Present value of cash inflows

Present value of cash inflows at 20% P.V factor = 2.5887×16,000 = 41,499

Present value of cash inflows at 22% P.V factor = 2,4936×16,00 = 39,898

By interpolation, IRR will be:

$$\text{IRR} = \text{A} + \frac{\text{C} - \text{D}}{\text{C} - \text{D}} (\text{B} \times \text{A}) \quad \text{or}$$

$$\text{LTR} + \frac{\text{PV at LTR} - \text{Original Investment}}{\text{PV @ LTR} - \text{PV at HTR (HTR} - \text{LTR)}}$$

$$20 + \frac{41{,}419 - 40{,}000}{41{,}419 - 39{,}898} \times 22 - 20$$

$$20 + \frac{1{,}419}{1{,}521} \times 2 = 20 + 1.86 = 21.86\%$$

Evaluation of Profitability Index

Like NPV and IRR Methods, Profitability Index is a conceptually sound method of apprising investment Projects. It provides ready comparison between investment proposals of different magnitudes. Projects can be ranked on the basis of profitability index. Highest rank will be assigned to the project with highest profitability index, while the lowest rank will be given to the project having lowest profitability index.

Illustration 14 :

The initial cash outlay of a project is Rs. 100,000 and it generates cash inflows of Rs. 40,000 Rs. 30,000, Rs. 50,000 and Rs. 20,000. Assume a 10% rate discount. Calculate profitability Index.

Year	*Discount factor at 10%*
1	0.909
2	0.826
3	0.751
4	0.683

Solution :

Calculation of Profitability Index

Year	*Cash Inflows* Rs.	*Discount factor value* 10%	*Present value of cash inflows* Rs.
1	40,000	0.909	36,360
2	30,000	0.826	24,780
3	50,000	0.751	37,550
4	20,000	0.683	13,660
		Total PVCI inflow	1,12,350

$$\text{Profitability Index} = \frac{\text{PV of cash inflows}}{\text{Initial cash outlay}} = \frac{1,12,350}{1,00,000} = 1.1235$$

Illustration 15 :

A project is estimated to cost Rs. 16,200. It is expected to have a life of 3 years and generate cash inflows of Rs. 8000, Rs. 7.000 and Rs. 6000 respectively. Calculate IRR.

Present value of Re. 1 at varying discount rate for period of 3 years.

Year	*13%*	*14%*	*15%*	*16%*
1	0.8850	0.8772	0.8696	0.8621
2	0.7831	0.7695	0.7561	0.7432
3	0.6930	0.6750	0.6575	0.6407
Total:	2,3611	2,3217	2,2832	2,2460

Solution:

$$\text{Factor} = \frac{\text{Original Investment}}{\text{Average Cash Inflow}}$$

$$= \frac{16{,}200}{\frac{8000 + 7000 + 6000}{3}} = \frac{16{,}200}{\frac{21{,}000}{3}} = \frac{16{,}200}{7{,}000} = 2.314$$

Referring the Annuity table under the heading of present value of Re. 1 varying discount rate for a period of 3 years. It is clear that Factor 2.314 lies between 2.3217 and 2.2832. In as much as the inference of existence of IRR, it ought to be between 14% and 15%.

Year	*Cash inflow*	*PV factor 14%*	*Present value of cash inflows Rs.*	*PV factor 15%*	*Present value of cash inflows Rs.*
1	8,000	0.8772	7,018	0.8696	6,957
2	7,000	0.7695	5,387	0.7561	5,293
3	6,000	0.6750	4,050	0.675	3,945
		Total	16,455		16,195

By interpolation, IRR will be

$$\text{IRR} = \text{A} + \frac{\text{C} - \text{D}}{\text{C} - \text{D}} \times (\text{B} - \text{A})$$

$$= \text{LTR} + \frac{\text{PV at LTR} - \text{Original Investment} \times (\text{HTR} - \text{LTR})}{\text{PV @ LTR} - \text{PV at HTR}}$$

$$= 14 + \frac{16{,}455 - 16{,}200}{16{,}455 - 16{,}195} \times 1 = 14 + \frac{255}{260}$$

$$= 14 + 0.98 = 14.98\%$$

Illustration 16 :

Calculate the average rate of return for Projects A and B from the following:

	Project A	*Project B*
Investments Expected life	Rs. 30,000 6 years	Rs. 40,000 5 years
Projected Net Income after income, depreciation and taxes.		
Years	*Project A Rs.*	*Project B Rs.*
1	3,000	6,000
2	3,000	6,000
3	3,000	5,000
4	2,000	3,000
5	1,000	2,000
6	—	1,000
Total =	12,000	23,000

If the required rate of return is 10%, which project should be undertaken?

Solution:

		Project A Rs.	Project B Rs.
Total profit of the Projects	=	12,000	23,000
Average Profit	=	12,000/5	23,000/5
	=	2,400	4,600
Net investment of the projects		30,000	40,000

$$\text{Average Rate of Return} = \frac{\text{Average Annual Profit}}{\text{Net Investment of the Project}}$$

$$A = \frac{2,400}{30,000} \times 100 = 8\%;\ B = \frac{4,600}{40,000} \times 100 = 11.5\%$$

If the average investment is taken into account:

$$\text{Average Investment} = \frac{\text{Initial Investment}}{2}$$

$$\text{Average Investment of Project A} = \frac{30,000}{2} = \text{Rs. } 15,000;$$

$$\text{Average Investment of Project B} = \frac{40,000}{2} = \text{Rs. } 20,000$$

$$\text{Average return on Average Investment} = \frac{\text{Average return}}{\text{Average investment}}$$

$$\text{Average return of Project A} = \frac{2,400}{15,000} \times 100 = 16\%$$

$$\text{Average return of Project B} = \frac{4,600}{20,000} \times 100 = 23\%$$

Since the return on investment of Project B is higher than Project A and the expected rate of return of Project B is to be considered for investment.

Illustration 17 :

A company is considering to purchase a machine. Two machines are available X and Y costing Rs. 50,000. Earnings after taxation are expected to be as follows :

Year	*Machine X* *Rs.*	*Machine Y* *Rs.*
1	15,000	5,000
2	20,000	15,000
3	25,000	20,000
4	15,000	30,000
5	10,000	20,000

Evaluate the two alternatives according to:

(a) The payback method

(b) Return on Investment method

(c) Net present value method (Cost of Capital 10%). Assume straight line method of depreciation, the Discount factor is as under:

Year	1	2	3	4	5
Discount Factor	0.909	0.826	0.751	0.683	0.621

(B.U., Apr. '99)

Solution :

Machine X

Table 1
CALCULATION OF ANNUAL CASH INFLOW AND PV OF CASH INFLOW

Year	*Earnings after Depreciation & taxes Rs.*	*Depre-ciation Rs.*	*Earnings before Depreciation after tax Rs.*	*Discount factor 10%*	*Present value of cash inflows Rs.*
1	15,000	10,000	25,000	0.909	22,725
2	20,000	10,000	30,000	0.826	24,780
3	25,000	10,000	35,000	0.751	26,285
4	15,000	10,000	25,000	0.683	17,075
5	10,000	10,000	20,000	0.621	12,420
				Total =	1,03,285

$$\text{Depreciation} = \frac{50{,}000}{5} = 10{,}000$$

***(a)* Payback period** $= 25{,}000 + \frac{25{,}000}{30{,}000} = 50{,}000$

$= 1\text{st year} + 0.83 = 1.83$ years.

= 1st year (In 1.83 years Rs. 50,000 is recovered).

***(b)* Return on Investment Method**

or

Accounting Rate of Return Method

$$= \frac{\text{Average Annual Income after Tax, \& Dep.}}{\text{Initial Investment}} \times 100$$

Average Annual Income after Tax and Dep.

$$= \frac{15{,}000 + 20{,}000 + 25{,}000 + 15{,}000 + 10{,}000}{5}$$

$$= \frac{85,000}{5}$$

$$= 17,000$$

$$\text{ARR} = \frac{17,000}{50,000} \times 100 = 34\%$$

(c) Net Present Value Method

Total Present Value of Cash Inflow	———
– Original Investment	———
NDV	———

NPV	=	1,03,285
		- 50,000
		+ 53,285

Machine Y
CALCULATION OF ANNUAL CASH INFLOW & PV OF CASH INFLOW

Year	*Earnings after Dep. & Tax*	*Depreciation*	*Earnings before Dep. after Tax*	*DF 10%*	*PV of each Inflow*
	Rs.	*Rs.*	*Rs.*		*Rs.*
1	5,000	10,000	15,000	0.909	13,635
2	15,000	10,000	25,000	0.826	20,650
3	20,000	10,000	30,000	0.751	22,530
4	30,000	10,000	40,000	0.683	27,320
5	20,000	10,000	30,000	0.621	18,630
					1,02,765

$$\text{Depreciation} = \frac{50,000}{5} = 10,000$$

			Cash Inflow	*Cumulative Cash Inflow*
(a)	Payback period =	1st year	15,000	15,000
		2nd year	25,000	40,000

$$\text{3rd year } 40,000 + \frac{10,000}{30,000} = 3.33 \text{ years}$$

(b) Accounting Rate of Return Method

$$= \frac{\text{Average Annual Income after Dep. \& Tax}}{\text{Initial Investment}} \times 100$$

$$= \frac{5{,}000 + 15{,}000 + 20{,}000 + 30{,}000 + 20{,}000}{5} = 18{,}000$$

$$\text{ARR} = \frac{18{,}000}{50{,}000} \times 100 = 36\%$$

(c) Net Present Value Method =

Total Present Value of Cash Inflow	=	1,02,765
– Original Investment	=	50,000
		+ 52,765

Illustration 18 :

X Ltd. has under consideration the following two projects. The details are as under :

	Project X *Rs.*	*Project Y* *Rs.*
Investment in Machinery	*10,00,000*	*15,00,000*
Working capital	*5,00,000*	*5,00,000*
Life of the Machinery	*4 years*	*6 years*
Scrap value of Machinery	*10%*	*10%*
Tax rate	*50%*	*50%*

Income before depreciation and tax

	Rs.	*Rs.*
1st year	*8,00,000*	*15,00,000*
2nd year	*8,00,000*	*9,00,000*
3rd year	8,00,000	15,00,000
4th year	8,00,000	8,00,000
5th year	—	*6,00,000*
6th year	—	*3,00,000*

You are required to calculate the ARR and suggest which project is to be preferred.

Solution :

Project X

Calculation of Average Investment

$$= \frac{\text{Original Investment} - \text{Scrap value}}{2} + \begin{array}{c}\text{Additional}\\ \text{Net working}\\ \text{capital}\end{array} + \begin{array}{c}\text{Scrap}\\ \text{value}\end{array}$$

$$= \frac{10{,}00{,}000 - 1{,}00{,}000}{2} + 5{,}00{,}000 + 1{,}00{,}000 =$$

$$= 4{,}50{,}000 + 5{,}00{,}000 + 1{,}00{,}000 = \text{Rs. } \mathbf{10{,}50{,}000}$$

Project Y

$$\text{ARR} = \frac{15{,}00{,}000 - 1{,}50{,}000}{2} + 5{,}00{,}000 + 1{,}50{,}000$$

$$= 6{,}75{,}000 + 5{,}00{,}000 + 1{,}50{,}000$$

$$= \text{Rs. } \mathbf{13{,}25{,}000}.$$

$$\text{ARR for X} = \frac{2{,}87{,}500}{10{,}50{,}000} \times 100 = 27.38\%$$

$$\text{ARR for Y} = \frac{3{,}54{,}167}{13{,}25{,}000} \times 100 = 26.73\%$$

Calculation of Annual Net Earnings Income Before Depreciation and Tax

Year	*Project X* *Rs.*	*Project Y* *Rs.*
1	8,00,000	15,00,000
2	8,00,000	9,00,000
3	8,00,000	15,00,000
4	8,00,000	8,00,000
5		6,00,000
6		3,00,000
Total	32,00,000	56,00,000
Less : Depreciation	9,00,000	13,50,000
Income after Depreciation and Tax	23,00,000	42,50,000
Less : Income Tax	11,50,000	21,25,000
Total Profit after Depreication and Tax	11,50,000	21,25,000

$$\text{Annual Average Net Earnings} = \frac{\text{Total Profit after Depn. \& Tax}}{\text{No. of years}}$$

	Project X *Rs.*	*Project Y* *Rs.*
=	$\frac{11{,}50{,}000}{4}$	$\frac{21{,}25{,}000}{4}$
=	2,87,500	5,31,250

Calculation of Average investment

$$\frac{\text{Original investment} - \text{Scrap value}}{2} + \text{Additional working capital} + \text{Scrap value}$$

$$\text{Project X} = \frac{10{,}00{,}000 - 1{,}00{,}000}{2} + 5{,}00{,}000 + 1{,}00{,}000$$

$$= 10{,}50{,}000$$

$$\text{ARR} = \frac{2{,}87{,}500}{10{,}50{,}000} \times 100 = 27.38\%$$

$$\text{Project Y} = \frac{15{,}00{,}000 - 1{,}50{,}000}{2} + 5{,}00{,}000 + 1{,}50{,}000$$

$$= 13{,}25{,}000$$

$$\text{ARR} = \frac{5{,}31{,}250}{13{,}25{,}000} \times 100 = 40.09\%$$

Project Y should be preferred since Project Y has higher ARR as compared to Project X.

Illustration 19 :

Bangalore University, April 1995
X Ltd., wants to replace its existing stamping machine. Two machines are currently available in the market. The Superior stamping machine costs Rs. 50,000 and will require a cash running expenses of Rs. 20,000 per year. The Star machine costs Rs. 75,000 but cash running expenses are expected to be Rs. 15,000 per year. Both the machines have a ten-year useful life with no salvage value and would be depreciated on a straight line method.
If the company pays 50% tax and wants after tax required rate of return which machine should it purchase?
The present value factors at 10% are:
1st year – 0.909, 2nd – 0.826, 3rd – 0.71, 4th – 0.683, 5th – 0.621, 6th – 0.564, 7th – 0.513, 8th – 0.467, 9th – 0.424, 10th – 0.386.

Solution :

Computation of NPV of savings in cash outflow when Star machine is purchased :

(INCREMENTAL APPROACH)

Particulars	*Rs.*	*PV Discount Factor at 10% Rs.*	*Total Present Values Rs.*
Savings in annual cash running expenses for 10 years (Rs. 20,000 – 15,000 *Less:* Income tax at 50%	= 5,000 = 2,500		
After Tax savings for 10 years	= 2,500	6.144	15,360
Add: Savings in Income tax 50% on account difference in Depreciation (Rs. 7,500 - 5,000) × 50/100	= 1,250	6.144	7,680
Total Savings	= 3,750		23,040
Less: Excess cash outflow on account of difference in cash outlay in the initial year (Rs. 75,000 – 50,000)	= 25,000		25,000
Net Present Value of Savings when Star machine is purchased			–1,960

Illustration 20 :

Ramya Enterprise can make either of two investments at the beginning of 1991. Assuring the rate of return of 10% p.a. Evaluate the investment proposal by using the following method.
(a) Average return on Average investment
(b) Profitability Index
(c) Discounted cash flow method (NPV)
(d) Payback period method. The details are :

	Proposal X *Rs.*	*Proposal Y* *Rs.*
Cost of the Investment	25,000	30,000
Life	5 years	6 years
Scrap Value		

Net Income (after Depreciation and Tax)		
Year	*Rs.*	*Rs.*
1991	600	3800
1992	1000	4500
1993	2500	5000
1994	3000	4500
1995	3500	5500
1996	—	6000

It is estimated that each of the alternative projects will require an additional working capital of Rs. 2,000 which will be received back in full after the expiry of each Project Life. Depreciation is provided under the straight line method. The present value of Re. 1 to be received at the end of each year at 10% p.a. given below :

Year	*PV factor*	*Year*	*PV factor*
1	0.909	6	0.564
2	0.826	7	0.513
3	0.751	8	0.467
4	0.683	9	0.424
5	0.621	10	0.386

Solution:

Calculation of Project after Tax

Proposal X

$$\text{Depreciation} = \frac{\text{Cost of the Investment}}{\text{Life of the Investment}}$$

$$X = \frac{25{,}000}{5} = \text{Rs. } 5{,}000 \quad Y = \frac{30{,}000}{6} = \text{Rs. } 5{,}000$$

(a) Average Return on Average Investment = $\frac{\text{Average Return}}{\text{Average Investment}} \times 100$

Proposal X

$$\text{Average Return} = \frac{10{,}600}{5} = \text{Rs. } 2{,}120$$

$$\text{Average Return} = \frac{25{,}000 + 2{,}000}{2} = \text{Rs. } 13{,}500$$

$$\text{ARAI} = \frac{2{,}120}{13{,}750} \times 100 = 15.42\%$$

Proposal Y

$$\text{Average Investment} = \frac{30{,}000 + 2{,}000}{2} = \text{Rs. } 16{,}000$$

$$\text{Average Return} = \frac{29{,}300}{6} = \text{Rs. } 4{,}883$$

$$\text{ARAI} = \frac{4{,}883}{16{,}000} \times 100 = 30.52\%$$

(b) Profitability Index :

Year	*Proposal X*			*Proposal Y*	
	Factor 10%	*Cash inflow Rs.*	*PV of cash inflow Rs.*	*Cash inflows Rs.*	*PV of cash inflows Rs.*
1	0.909	5,600	5,090	8,800	7,999
2	0.826	6,000	4,956	9,500	7,847
3	0.751	7,500	5,633	10,000	7,510
4	0.683	8,000	5,464	9,500	6,489
5	0.621	8,500	5,279	10,500	6,521
6	0.564	—	—	11,000	6,204
		TOTAL	26,422		42,570
Less: Original investment NPV			25,000		30,000
			1,422		12,570

$$\text{Net Profitability Index} = \frac{\text{NPV}}{\text{Original Investment}}$$

$$X = \frac{1,422}{25,000} \times 100; \; Y = \frac{12,570}{30,000} \times 100$$

$$X = 5.7\% \; Y = 41.9\%$$

(c) Discounted cash flow method

Total Present value of cash inflow	=	26,422	42,570
Less: Original Investment	=	25.000	30,000
NPV	=	1,422	12,570

(d) Pay back Period

Proposal X		*Proposal Y*	
Year	*Cash inflows* *Rs.*	*Year*	*Cash inflows* *Rs.*
1991	5,600	1991	8,800
1992	6,000	1992	9,500
1993	7,500	1993	10,000
1994	900	1994	1,700
	8,000		9,500
	3.11 Years		3.18 Years

Illustration 21 :

The following information is available pertaining to 'X' machine.
Initial investment Rs. 20,00,000. Required rate of returns – 10%
Cash flows in various years.

Year	*Cash flows* *Rs.*
1994	2,00,000
1995	8,00,000
1996	12,00,000
1997	12,00,000
1998	4,00,000

(1) Calculate the payback period ignoring the interest factor.

(2) Payback period taking into account the interest factor.

Solution :

(1) Master Table showing the calculation (Considering interest factor)

Year	*Cash flows* *Rs.*	*DF factors*	*Discounted Cash flows* *Rs.*	*Cumulative Discounted Cash flows* *Rs.*
1994	2,00,000	$\frac{1}{(1.10)} = 0.909$	1,81,800	1,81,800
1995	8,00,000	$\frac{1}{(1.10)^2} = 0.826$	6,60,800	8,42,600
1996	12,00,000	$\frac{1}{(1.10)^3} = 0.751$	9,01,200	17,43,800
1997	12,00,000	$\frac{1}{(1.10)^4} = 0.683$	8,19,600	
1998	4,00,000	$\frac{1}{(1.10)^5} = 0.620$	2,48,000	

$$\text{Payback Period} = 3 + \frac{2,56,200}{8,19,600} = .31$$
$$= 3.31 \text{ years}$$

(2) Master Table showing the calculations (Ignoring interest factor)

Year	*Cash inflows* *Rs.*	*Cumulative Cash inflows*
1994	2,00,000	2,00,000
1995	8,00,000	10,00,000
1996	12,00,000	
1997	12,00,000	
1998	4,00,000	

$$\text{Payback Period} = 2 + \frac{10,00,000}{12,00,000} = .83$$
$$= 2.83 \text{ years}$$

POINTS TO REMEMBER

Calculation of Cash Inflow	
	Rs.
Revenue from Cash Sales	....
Less: Operating Expenses	....
Cash flow before taxes	....
Less: Depreciation	....
Cash flow after Depreciation before tax	....
Less: Tax	....
Cash flow after Depreciation and Tax	....
Add: Depreciation	....
Cash Inflows	....
Add: Salvage Value	....
Cash inflows in the year	....
Add: Recovery of working capital if any	....
Total cash inflows	....
Net Present Value Method :	
Total Present Value of Cash Inflow	....
Less: Original Investment	....
Net Present Value	....

Average Rate of Return Method:

$$\text{ARR} = \frac{\text{Annual Average Net Earnings}}{\text{Original Investment}} \times 100 \quad \text{or}$$

$$\text{ARR} = \frac{\text{Annual Average Net Earnings}}{\text{Average Investment}}$$

Where, Annual Average Net Earnings = Earning after depreciation and tax

$$\text{Average Investment} = \frac{\text{Original Investment}}{2} \quad \text{or}$$

$$\text{A.I.} = \frac{\text{Original Investment} - \text{Scrap value of the asset}}{2} \quad \text{or}$$

$$\text{A.I.} = \frac{\text{Original Investment} + \text{Scrap value of the asset}}{2} \quad \text{or}$$

$$= \frac{\text{Original Investment} - \text{Scrap value of the asset}}{2} + \begin{matrix}\text{Additional}\\ \text{working capital} + \text{scrap value}\end{matrix}$$

Internal Rate of Return Method :

$$IRR = A + \frac{C - O}{C - D}(B-A)$$

Where A = Discount factor of Lower trial rate
B = Discount factor of Higher trial rate
C = Present value of cash inflow of Lower trial rate
D = Present value of cash inflow at Higher trial rate
O = Original cash outlay or Original Investment

or

$$IRR = \text{Lower Trial rate} + \frac{\text{Difference between calculated present value and required net cash outlay}}{\text{Difference between present value of Lower trial and Higher trial rate}} \times \text{Difference between}$$

STUDY QUESTIONS

Part - A

(2 marks questions)

1. What is capital budgeting?
2. How would you treat depreciation, working capital and salvage value in determining the cash flows?
3. What is profitability index?
4. What is meant by time value of money?
5. Under what circumstances do the "NPV" and "IRR" methods differ ?
6. What do you mean by capital rationing?
7. What do you mean by the mutually exclusive projects?
8. Does capital rationing lead to optimal investment decisions ?
9. Define internal rate of return.
10. What is the accept or reject criterion under the NPV method?
11. What do you mean by payback period?
12. Mention the most important disadvantage of pay back method.
13. Mention the steps involved in the capital budgeting process.
14. What are the steps involved in project evaluation?
15. What do you mean by the discounting of cash flows?
16. What do you mean by the concept risk?
17. What do you mean by risk adjusted discount rate?
18. Distinguish between risk and uncertainty.
19. What do you mean by decision tree?
20. What do you mean by certainty equivalent co-efficient?
21. What do you mean by sensitivity analysis on capital budgeting?
22. What do you mean by financial risk ?
23. Distinguish between the financial and the business risk.

24. Fill in the blanks:
    (a) The technique of long-term planning for proposed capital outlays and their financing is termed as ....
    (b) The minimum rate of return expected on a capital investment project is termed as ....
    (c) The rate of interest at which the present value of expected cash inflows from a project equals the present value of expected cash outflows of the same project is termed as ....
    (d) .... is the annual average yield on a project.
    (e) The period needed to recoup, in the form of cash inflows from operations, the initial money invested is termed as ....

    [Ans. (a) Capital budgeting (b) cut off rate (c) internal rate of return (d) accounting rate of return (e) pay back period].
25. What is a cash flow? ***(B.U. Apr. '99)***

Part – B

(8 marks questions)

1. Compare and contrast "NPV" method with "IRR" method.
2. What are the limitations of ratio analysis?
3. Explain the merits and demerits of pay back method?
4. Explain the salient features of the 'Present value method' of project evaluation and examine its rationality.
5. State how you consider the payback method useful for assessing economic worth of a project.
6. Why is the cash flow concept important for capital budgeting?
7. How do you calculate the Accounting Rate of Return ?
8. What are the limitations of Accounting Rate of Return?
9. How do you compare the risk factor of two capital projects with the help of standard deviation?
10. What are the features of discounted cash flow method of evaluating on investment proposal.

Part – C

(15 marks questions)

1. Define capital rationing. How would projects be ranked under capital rationing? Does capital rationing lead to sub-optimal investment decisions?
2. What is capital budgeting? Why is it significant for a firm?
3. Critically examine the various steps involved in capital budgeting process.
4. Outline the financial management techniques of evaluation of capital investment in fixed asset.
5. What are the features of discounted cash flow method of evaluating on investment proposal ? Is it a reliable technique?
6. The Alpha Co. Ltd., is considering the purchase of a raw machine. Two alternative expected to be as follows.

Year	*Cash flow*	
	Machine A *Rs.*	*Machine B* *Rs.*
1	40,000	1,20,000
2	1,20,000	1,60,000
3	1,60,000	2,00,000
4	2,40,000	1,20,000
5	1,60,000	80,000

The company has a target of return on capital of 10 per cent and on this basis, you are required to compare the profitability of the machines and state which alternative you consider financially preferable.

Note : The present value of Re. 1 due in the years time at 10% = 0.91. The present value of Re. 1 due on three years time at 10% = 0.75. The present value of Re. 1 due in four years time at 10% = 0.68. The present value of Re. 1 due in five years time at 10% = 0.62.

7. X Ltd., is considering the purchase of a new machine which will carry out operations performed by labours A and B are alternative models. From the following information, you are required to prepare a profitability statement and work out the payback period in respect of each machine.

	Machine A *Rs.*	*Machine B* *Rs.*
Estimated life of machine (years)	5	6
Cost of machine	1,50,000	1,00,000
Cost of indirect materials	6,000	8,000
Estimated savings in scrap	10,000	15,000
Additional cost of maintenance	19,000	27,000
Estimated savings in direct wages Employees not required (number)	150	200
Wages per employee	600	600

Taxation is to be regarded as 50% of profit. (Ignore depreciation for calculation of tax). Which model would you recommend? State your reasons.

(*Ans.* Pay back period in case of Machine A is 4 years and in case of Machine B, it is 5 years. Hence Machine A is preferable).

8. Krishna Ltd., is considering the purchase of a new machine to replace one which has been operating for six years. The following information is available.

	Present Machine Rs.	*Proposed Machine Rs.*
Cost of Machine	12,000	20,000
Estimated life of machine	10 years	10 years
Running hours per annum	2,000	2,000
Output per hour (units) costs	20	40
Power per annum	800	1,700
Consumable stores	1,000	1,400
Miscellaneous expenses	1,200	1,600
Wages cost per running hour	0.80	1.20
Material cost per unit	0.20	0.20
Sales price per unit	0.45	0.40
Disposal value	4,000	

Taxation is assumed to be 50% of the profit.
You are required to compare the profitability and advise the company.

9. Shree Prakash and Company has been using a machine costing Rs. 15,000 for the past ten years. The machine has 15 years of life and it has been depreciated at the rate of 10% per annum. The current salvage value would be Rs. 2,000 and the company has been paying 50% of its profits as taxes (*i.e.* it is subjected to 50% flat tax rate).
   Now the management desires to replace it by new machine costing Rs. 10,000 with salvage value of Rs. 2,000. The new machine has a life of 10 years and will be depreciated at the rate of 10% per annum. The cost of capital is 10% and the expected selling is likely to be Rs. 3,000 per annum.
   (a) Should the company go for a new machine?
   (b) What would be your advise if expected saving increases by 50% per annum but expected life decreases 5 years?
   (*Ans.* It is worth having a new machine).

10. Venkey and Co. is considering the purchase of a machine. Two machines X and Y each costing Rs. 50,000 are available. Earnings after taxation are expected to be as under:

Year	*Machine X Rs.*	*Machine Y Rs.*	*Discount factor at 20% Rs.*
1	15,000	5,000	0.9091
2	20,000	15,000	0.8264
3	25,000	20,000	0.7513
4	15,000	30,000	0.6830
5	10,000	20,000	0.6209

Evaluate the two alternatives according to:

(1) Payback method

(2) Return on investment method

(3) Net-present value method.

11. The following information is available pertaining to Rowan machine.
Initial investment – Rs. 10,00,000
Required rate of return – 10%
Cash flows in various years.

Year	*Cash flows Rs.*
1994	1,00,000
1995	4,00,000
1996	6,00,000
1997	6,00,000
1998	2,00,000

(1) Calculate the payback period ignoring the interest factor.

(Ans. 3.31 yrs.)

(2) Payback period taking into account the interest factor.

(Ans. 2.83 yrs.) (B.U. Apr. '99) [See Illustration 21]

5

DIVIDEND DECISION

Dividend Decision - Factors Influencing Dividend Decisions - Forms of Dividend

DIVIDEND POLICY

Meaning and Significance

Dividend is the portion of earnings which is distributed among the shareholders. In other words, dividend policy determines the division of earnings between payments to shareholders and retained earnings. Formulation of proper dividend policy is one of the major financial decisions to be taken by the financial managers. We give here the importance and significance of dividend policy.

Retained earnings are one of the most important sources of internal funds for meeting the financial needs of the company for its growth and development. The dividend distribution to equity shareholders involve the outflow of cash. But growth of the company and dividend distribution to shareholders are desirable. But these two goals are in conflict. A higher dividend rate means less retained earnings, which may consequently result in slower growth and lower market rate per share. In view of this determining the dividend policy is one of the important functions of finance manager and he must very carefully divide the allocation of earnings between dividends and retained earnings.

Dividend policy may have a critical influence on the value of the firm. If the value of the firm, is a function of its dividend payment ratio, the dividend policy will affect directly the firm's cost of capital.

A company which wants to pay dividends and also needs funds to finance its investment opportunities will have to depend on external source of finance such as issuing debentures and equity shares. Dividend policy of the firm thus affects both long-term financing and the wealth of shareholders. Because of this, the decision of the company to pay dividend may be shared by two possible view points, *viz., (i)* as a long-term financing decision and *(ii)* as a wealth maximisation decision.

1. As a Long-term Financing Decision: When dividend decision is treated as a financing decision, the net earnings of the firms may be viewed as a source of long-term financing. With this approach, a company will pay dividend only when it does not have profitable investment opportunities, it can issue equity to the public, but retained earnings are preferable. Because, unlike external equity, they do not involve pay floating costs. Payment of dividends reduces the amount of funds available to finance profitable investment opportunities. Hence, either company's growth is restricted or the company may be forced to depend on other costly sources of financing. Thus, the dividend policy which involves retaining of earnings, is a long term financing decision related to management of capital structure of the firm.

2. As a Wealth Maximisation Decision: The tendency of most of the shareholders is to give a higher value to the near dividends than the future values in the market. Higher dividends increase the value of shares and low dividends decrease the value. In order to maximise wealth, *i.e.,* maximisation of the value of the firm to its shareholders, the management must declare sufficient dividends.

The management of a firm must carefully decide its dividend policy. If more net earnings are retained, the shareholders dividend is decreased and the market price of the shares may be adversely affected. But the use of retained earnings to finance profitable projects will increase future earnings per share. On the other hand, if the firm increases dividend, there may be a favourable reaction in the stock market, but the firm may have to forego some investment opportunities for want of funds. Because of this, the future earnings of share may decrease. In view of this the management should decide dividend policy carefully, so that the net earnings are divided between dividends and retained earnings in an optimum way to achieve the objective of maximising the wealth of shareholders.

Shareholders' wealth includes not only market price of shares quoted in stock market but also current dividends. Thus, dividends are more than just a means of distributing unused funds. Dividend policy to a large extent affect the financial structure, the flow of funds, corporate liquidity, stock prices, growth of the company and investor's satisfaction. That is why, dividend policy has much significance and the management has to decide it very carefully.

Factors Influencing Dividend Policy

Many factors influence a company in its dividend policy. We give here a list of major factors which influence dividend policy of a concern.

*1. **Stability of Earnings:*** Stability of earnings is one of the important factors influencing the dividend policy. If earnings are relatively stable, a firm is in a better position to predict what its future earnings will be and such companies are more likely to pay out a higher percentage of its earnings in dividends than a concern which has a fluctuating earnings. Generally, the concerns which deal in necessities suffer less from fluctuating incomes than those concerns which deal with fancy or luxurious goods.

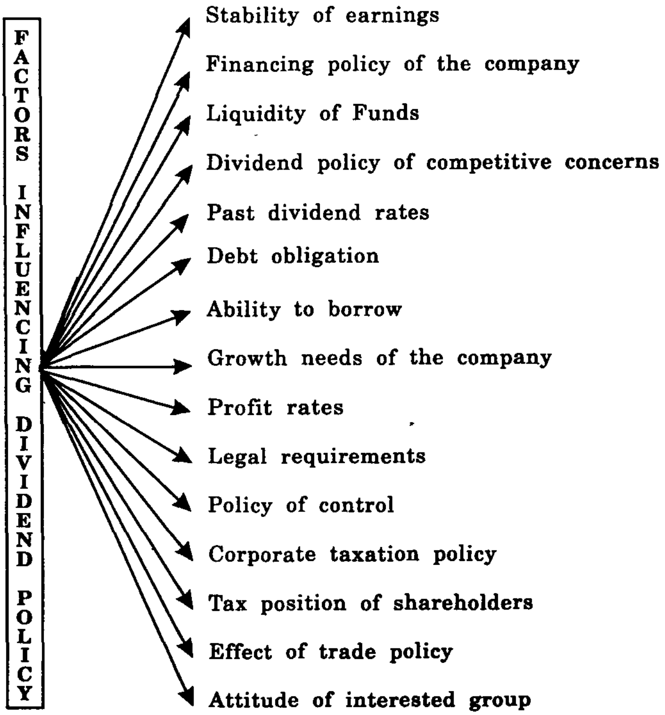


Fig. 5.1 Factors influencing Dividend policy

2. Financing Policy of the Company: Dividend policy may be affected and influenced by financing policy of the company. if the company decides to meet its expenses from its earnings, then it will have to pay less dividend to shareholders. On the other hand, if the company feels, that outside borrowing is cheaper than internal financing, then it may decide to pay higher rate of dividend to its shareholder. Thus, the internal financing policy of the company influences the dividend policy of the business firm.

3. Liquidity of Funds: The liquidity of funds is an important consideration in dividend decision. According to Guthmann and Dougall, "Although it is customary to speak of paying dividends 'out of profits', a cash dividend only be paid from money in the bank. The presence of profit is an accounting phenomenon and a common legal requirement, with the cash and working capital position is also necessary in order to judge the ability of the corporation to pay a cash dividend." Payment of dividend means, a cash outflow, and hence, the greater the cash flow, the position and liquidity of the firm is determined by the firm's investment and financing decisions. While the investment decisions determine the rate of asset expansion and the firm's needs for funds, the financing decisions determine the manner of financing.

4. Dividend Policy of Competitive Concerns: Another factor which influences the dividend policy is the policy of dividend of other competitive concerns in the market. If the other competing concerns, are paying higher rate of dividend than this concern, the shareholders may prefer to invest their money in those concerns rather than in this concern. Hence, every company will have to decide its dividend policy, by keeping in view the dividend policy of other competitive concerns in the market.

5. Past Dividend Rates: If the firm is already existing, the dividend rate may be decided on the basis of dividends declared in the previous years. It is better for the concern to maintain stability in the rate of dividend and hence, generally the directors will have to keep in mind the rate of dividend declared in the past.

6. Debt Obligations: A firm which has incurred heavy indebtedness, is not in a position to pay higher dividends to shareholders. Earning retention is very important for such concerns which are following a programme of substantial debt reduction. On the other hand. if the company has no debt obligations, it can afford to pay higher rate of dividend.

7. Ability to Borrow: Every company requires finances both for expansion programmes as well as for meeting unanticipated expenses. Hence the companies have to borrow from the market. Well established and large firms have better access to the capital market than new and small firms and hence, they can pay higher rate of dividend. The new companies generally find it difficult to borrow from the market and hence they cannot afford to pay higher rate of dividend.

8. ***Growth Needs of the Company:*** Another factor which influences the rate of dividend is the growth needs of the company. In case the company has already expanded considerably, it does not require funds for further expansions. on the other hand, if the company has expansion programmes, it would need more money for growth and development. Thus when money for expansion is not needed, then it is easy for the company to declare higher rate of dividend.

9. ***Profit Rate:*** Another important consideration for deciding the dividend is the profit rate of the firm. The internal profitability rate of the firm provides a basis for comparing the productivity of retained earnings to the alternative return which could be earned elsewhere. Thus, alternative investment opportunities also play an important role in dividend decisions.

10. ***Legal Requirements:*** While declaring dividend, the board of directors will have to consider the legal restrictions. The Indian Companies Act 1956, prescribes certain guidelines in respect of declaration and payment of dividends and they are to be strictly observed by the a company for declaring dividends. (These guidelines are given in the end of this chapter.)

11. ***Policy of Control:*** Policy of control is another important factor which influences dividend policy. If the company feels that no new shareholders should be added, then it will have to pay less dividends. Generally, it is felt, that new shareholders, can dilute the existing control of the management over the concern. Hence, if maintenance of existing control is an important consideration, the rate of dividend may be lower so that the company can meet its financial requirements from its retained earnings without issuing additional shares to the public.

12. ***Corporate Taxation Policy:*** Corporate taxes affect the rate of dividends of the concern. Heavy rates of taxation reduce the residual profits available for distribution to shareholders. Hence, the rate of dividend is affected. Further, in some circumstances, government puts dividend tax on distribution of dividends beyond a certain limit. This may also affect rate of dividend of the concern.

13. Tax Position of Shareholders: The tax position of shareholders is another influencing factor on dividend decisions. in a company if a large number of shareholders have already high income from other sources and are bracketed in high income structure, they will not be interested in high dividends because large part of the dividend income will go away by way of income tax. Hence, they prefer capital gains to cash gains, i.e., dividend. By capital gains here we mean capital benefit derived by the capitalisation of the reserves or issue of bonus shares. Instead of receiving the dividend in the form of cash (whatever may be the per cent), the shareholders would like to get shares and increase their holding in the form of shares. This has certain benefits to shareholders. They get money by selling these extra shares received in proportion to their original shareholding. This will be a capital gain for them. Of course they have to pay tax on capital gains. But the capital gains tax will be less compared to the income-tax that they should have paid when cash dividend was declared and added to the personal income of the share holders. Bonus shares also indicate that the profitability of the company is rated high. Bonus shares may convey some information which will have a favourable impact on the value of shares. Capital gain issue of bonus share will have a favourable psychological effect on shareholders. On the other hand, if the majority of the shareholders do not belong to high income group, they prefer to have dividends in cash and that too to the maximum extent possible. Thus liberal dividends are unattractive for high income group shareholders and attractive for low or middle income group shareholders.

14. Effect of Trade Cycle: Trade cycle also influences the dividend policy of the concern. For example, during the period of inflation, funds generated from depreciation may not be adequate to replace the assets. Consequently there is a need for retained earnings in order to preserve the earning power of the firm.

15. Attitude of the Interested Group: A concern may have certain group of interested and powerful shareholders. These people have certain attitude towards payment of dividend and have a definite say in policy formulation regarding dividend payments. If they are not interested in higher rate of dividend, shareholders are not likely to get that. On the other hand, if they are interested in higher rate of dividend, they will manage to make company declare higher rate of dividend even in the face of many odds.

STABILITY OF DIVIDEND

Stability or regularity of dividend is regarded as a desirable policy by the management of most business concerns. Most of the shareholders also prefer stable dividends because all other things being the same, stable dividends have a positive impact on the market price of the share.

Stability of dividends sometimes means regularity in paying some dividend every year, even though the amount of dividend may fluctuate from year to year. Further, the dividend declared may not be related with earnings. There are four distinct forms of such stability dividend. These four forms are also dividend practices generally followed by the companies and they are explained here.

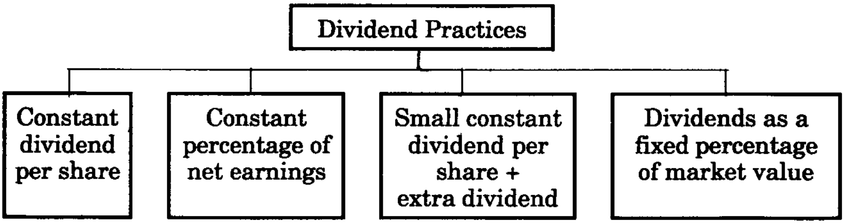


Fig. 5.2 Dividend practices

Dividend Practices

1. Constant dividend per share
2. Constant percentage of net earnings
3. Small constant dividend per share plus extra dividend
4. Dividends as a fixed percentage of market value

1. Constant Dividend per Share: A number of companies follow the policy of paying a fixed amount per share as dividend every year, without considering the fluctuations in the earnings of the company. This does not mean, that the dividend per share shall never be increased. If the company's earnings increase and if it hopes to maintain it at that level, it may increase its annual dividend.

A company can follow this policy easily when its earnings are stable, but when earning fluctuate, it is difficult to maintain such policy. A company, earnings of which fluctuate but wants to follow stable dividend policy, must build up surpluses in years of higher than average earnings to maintain dividend in years of below average income. The surpluses which are built from earnings in good years are treated as reserves for dividend equalisation. These funds are invested in current assets like marketable securities, so that the company can convert them into cash easily for paying dividend in bad years.

The policy of stable dividend is generally preferred by those persons who depend upon the dividend income to meet their living expenses. Similarly institutions which depend on dividend income for meeting their operating expenses also prefer stable dividend.

2. Constant Percentage of Net Earnings: Some companies follow a dividend policy of constant payment ratio, *i.e.*, paying a fixed percentage of net earnings as dividend will fluctuate in direct proportion to earnings of the company. That is, if a company adopts, 25 per cent pay out ratio, then 25 percent of every rupee of net earnings will be paid and internal financing with retained earnings is automatic. At any given pay out as dividends. For example, if the company earns Rs. 2 per share, the dividend per share will be Re. 0.50.

In this policy, if the company incur losses, no dividend shall be paid and internal financing with retained earnings is automatic. At any given pay out ratio, the amount of dividends and addition to retained earnings increase with the increase in company's earnings. One important feature of this policy it its conservatism and its guaranteed against over or under payment, since, management cannot pay dividend, if profits are not earned in the current year and cannot forego a dividend, if profits are earned.

3. Small Constant Dividend per Share plus Extra Dividend: Under the 'constant dividend per share' policy, the amount of dividend is set at a high level and this policy is usually adopted by the companies with stable earnings. For companies whose earnings fluctuate, the policy to pay a minimum dividend per share with a step-up feature is quite popular. The small amount of dividend is fixed with the purpose of maintaining regularity in payment of dividend and extra dividend is paid in periods of prosperity. This type of policy enables a company to pay a constant amount of dividend regularly without a default and to pay extra dividend when the company's earnings are higher than the usual.

4. Dividend as a Fixed Percentage of Market Value: According to some financial managers, the shareholders often translate their dividend income into the percentage returns of market price of their shares and hence, they suggest that it is better if dividends are tied to the value of company's shares rather than to its profits. This requires, first setting up a representative rate of dividend return as target rate which may be rate paid by a closely competitive company or the average dividend for the industry. This approach is followed on the belief that it is the obligation of management to the shareholders to adjust dividend payment with the rates paid by the competitors and by the industry as a whole.

Some drawbacks of this method are, that this policy singles out the market as the ideal valuation mechanism and the effects of dividends on internal investment conditions or on prospects of future financing are not considered.

We have discussed above four practices of stability of dividends. Generally when we refer to a stable dividend policy, we refer to the first form, *i.e.*, constant dividend per share. Shares of a company which follows policy of stable dividend will command a higher price in the market than the shares of a company on which dividend fluctuates with cyclical fluctuations in the earnings.

Significance of Stability of Dividend

From the stability of dividend, both the shareholders and the company secure certain advantage. They are as follows:

1. Confidence among Shareholders: Payment of a regular and stable dividend may help in building confidence in the minds of investors regarding regularity of dividend. When a company follow a policy of stable dividends, it will not change the amount of dividend, if earnings change temporarily. Thus when the earnings drop, the company does not cut its dividends. By this the company conveys to investors that the future of the company is bright than suggested by drop in earnings. Similarly, the amount of dividend is increased with increased earnings level only if the company is convinced that it is possible to maintain it in future. On the other hand, if a company follows a policy of changing dividend with changes in its earnings, the shareholders not only would not be certain about the amount of dividend but also may entertain doubts about the company's future.

2. Investors Desire for Current Income: There are many investors such as women, old and retired persons etc., who prefer to receive income regularly to meet their living expenses. Such income conscious investors will certainly prefer a company with stable dividends to one with unstable dividends.

3. Institutional Investor's Requirements: Investments are made in company shares not only by individuals but also by financial, educational and social institutions and units trust. Generally companies are interested to have institutions in the list of their investors. Normally the institutions prefer to invest in the shares of those companies which pay dividends regularly. Thus to attract institutional investors a company prefers to follow a stable dividend policy.

4. Stability in Market Price of Shares: Stable dividends help in maintaining stability in market price of shares and this is good for both to the company and to the shareholders. Studies of individual shares have revealed that stable dividends buffer the market price of the stock when earnings turn down.

5. Raising Additional Finances: A stable dividend policy is also advantageous to company in raising external finance. Stable and regular divided policy tends to make the shares of a company an investment rather than a speculation. Investors who purchase these shares tend to hold them for long periods of time and their loyalty and good will towards the company increase. If the company issues new shares, they would be more receptive to the offer. Thus raising of additional finance becomes easy for the company.

6. Spreading of Ownership of Outstanding Shares: Stable dividend policy helps in spreading ownership of outstanding shares more widely among small investors because the persons with small means, in the hope of supplementing their income, usually prefer to purchase shares of those companies which follow stable dividend policy.

7. Reduces the Chances of Loss of Control: Because of the spreading of ownership of outstanding shares among the large number of small investors, the chances of loss of control by the present management over the company reduced.

8. Market for Debentures and Preference Shares: A stable dividend policy also helps the sale of debentures and preference shares of the company. The fact that the company has been paying dividend regularly in the past is sufficient to the investors in debentures bonds, and preference shares about their regular income. Hence, good market is provided for debenture and preference shares.

Thus, the stability of dividends affect the standing and value of equity share and also standing of the corporation in the eyes of the investing public. This enhanced standing is reflected in the price of company's securities.

Dividend that is being distributed by a company may take several forms, *viz., (a)* Scrip dividend, *(b)* Bond dividend *(c)* Property dividend *(d)* Cash dividend and *(e)* Stock dividend. In India only cash dividend and stock dividend are declared and paid. We shall give here a brief explanation of these forms of dividend:

FORMS OF DIVIDEND

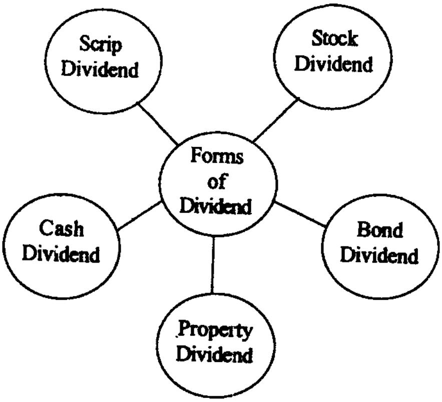


Fig. 5.3 Forms of Dividend

(a) Scrip Dividend: When earnings of the company justify dividend, but the company's cash position is temporarily weak and does not permit cash dividend, it may declare dividend in the form of scrips. In this method of dividend, the share holders are issued transferable promissory notes which may or not be interest bearing. Scrip dividends are justified only when the company has really earned profit and has only to wait for the conversion of other current assets into cash in the course of operations.

(b) Bond Dividends: Sometimes the dividends are paid in bonds or notes that have a long enough term to fall beyond the current liability group. Effect of both scrip dividends and bond dividends is the same except that the payment is postponed in the bond dividends.

(c) Property Dividends: This involves a payment with assets other than cash. This form of dividend may be followed wherever there are assets that are not longer necessary in the operation of the business.

(d) Cash Dividend: Cash dividend is the dividend which is distributed to the share holders in cash out of the earnings of the business.

(e) Stock Dividend: Stock dividend is the dividend which is paid to the share holders in kind. When stock dividends are paid, a portion of the surplus is transferred to the capital account and share holders are issued additional share certificates. Such share are known as bonus shares and this process is known as capitalisation of profit. This dividends is declared to only equity share holders and it may take two forms.

(i) Making the partly paid equity shares fully paid up without asking for cash from the share holders; or

(ii) Issuing or allotting equity shares to existing shareholders in a definite proportion out of profit (or surplus).

Stock dividend does not alter the cash position of the company. It serves to commit the retained earnings to the business as a part of its fixed capitalisation. Further, stock dividend does not result in the change in the equity of shareholders or in the proportions that say individual shareholders owns. Indian Companies Act 1956, provide certain rules and regulations for declaration of dividend and every company should observe them strictly.

It may be noted here, that the Indian Companies Act 1956 permits declaration of only two types of the dividends in India, *viz., (a)* cash dividend and *(b)* stock dividend. We will discuss here the objects of stock dividend and the advantages and limitations of stock dividend.

Objects of Stock Dividend

Stock dividend may be issued by a company to serve certain objectives. They are as follows.

1. Conservation of Cash: Issuing of bonus shares does not involve the payment of cash in business.

2. Lower Rate of Dividends: Stock dividend is a remedy for under capitalisation too. Under-capitalised concern with a high rate of earnings can reduce rate of dividend on the capital employed by increasing its capitalisation. The increase in the number of shares reduces rate of dividend per share.

3. Financing Expansion Programmes: Through the issue of bonus shares, corporate savings become the permanent part of the capital structure of a company. This helps financing expansion and modernisation programmes of a company.

4. Transferring the Formal Ownership of Surplus and Reserves to the Shareholders: By issuing bonus shares, surplus and reserve are capitalised and formal ownership is transferred to the shareholders.

5. Enhanced Prestige: Company which issues bonus shares will have increased credit standing in the market and its borrowing capacity goes on high in the eyes of lending institutions.

6. Widening Share Market: A company interested in widening the ownership of its shares may issue bonus share. Some of the old shareholders may sell their new shares. Moreover, because of the increased prestige of the company, there will be good demand for the share of this company.

*7. **True Presentation of Earning Capacity:*** If the revenues are not capitalised, a false idea about the rate of profits is created in the minds of public. This is because, share capital is left unchanged while profits continue to accumulate. Hence, by issuing bonus shares, real picture of the company is presented to the investing public.

ADVANTAGES OF STOCK DIVIDEND (OR BONUS SHARES)

A. Advantages for Issuing Company

*1. **Maintenance of Liquidity Position:*** By issuing bonus shares, company does not pay cash to the share-holders and by this company can maintain its liquidity position.

*2. **Satisfaction of Share Holders:*** By the issue of bonus shares, the equity of shareholders in the company increases. By this, the confidence of investors will increase in the soundness of the corporation and this results in the benefit to shareholders.

*3. **Economical Issue of Capitalisation:*** The issue of bonus shares involves minimum cost and hence it is the most economical issue of securities.

*4. **Remedy for Under Capitalisation:*** Rate of dividend in under capitalised companies is high and by issuing bonus shares, the rate of dividend per share can be reduced. Hence, company can be saved from the effect of under capitalisation.

*5. **Enhance Prestige:*** By issuing bonus shares, the company increases its credit standing and its borrowing capacity goes high in the eyes of lending institutions.

*6. **Widening the Share for Market:*** A company which is interested in the wider ownership of its shares, may issue bonus shares. Some of the old shareholders will sell their new shares and by this the object of the company is achieved.

*7. **Finance for Expansion Programmes:*** By issuing bonus shares, the expansion and modernisation programmes of a company can be easily financed. Hence the company need not depend much on out side agencies for finances.

*8. **Conservation of Control:*** Maintenance of existing control is possible by issuing bonus shares. Generally, it is felt that the new shareholders can dilute the existing control of the management, over the concern. This can be avoided by issuing bonus shares.

B. Advantages to the Investors

1. Increase in their Equity: By issuing bonus shares, the equity of the shareholders is increased in the company. For example, Mr. X is the owner of 40 equity shares of Rs. 100 each. Now the company issues 8 bonus shares to him. Before the issue of bonus shares, his equity was Rs. 4,000 in the company but now his equity is increased to Rs. 4,800.

2. Marketability of Shares is Increased: When the company issues bonus shares, the marketability of its shares is increased. By this the share holders are benefited.

3. Increase in Income: If the company can maintain the same rate of dividend as before on the increased capital also, the shareholders' income will increase.

4. Increased Demand for Shares: When a company issues bonus share, its image increases. Hence there will be increased demand for the shares of the investors.

DISADVANTAGE OF STOCK DIVIDEND (BONUS SHARE)

A. For Company

1. Issue of bonus shares leads to an increase in the capitalisation of the corporation. This can be justified only if there is a proportionate increase in the earning capacity of the company.
2. Issue of bonus shares results in more liability on the company in respect of future dividends.
3. It prevents new investors from becoming the shareholders of the company.
4. Control over the management of the company is not diluted and the present management may misuse its position.

B. For Investors

1. Some shareholders prefer cash dividends instead of bonus shares. Such shareholders may be disappointed.
2. Issue of bonus share lowers the market value of existing shares too.

Guidelines on Bonus Shares

The companies in India have to follow certain guidelines regarding the issue of bonus shares which are given below :

1. The bonus shares to be issued are to be approved by the SEBI (Security Exchange Board of India).

2. The bonus shares can be issued out of free reserves and share premium account. Development Rebate Reserve and Investment Allowance Reserve are a part of the free reserves.
3. Capital profit derived by revaluation of assets cannot be considered for issuing bonus shares (unless special permission is obtained and such profit be realised in cash).
4. The total amount of bonus shares to be issued should not exceed the existing paid-up capital at any time of issue.
5. If the companies are mobilising funds from the Indian residents for expansion, diversification or for liquidating the foreign shareholding under FERA-1973, the controller of capital issues can relax and permit the companies to raise funds. However, such permission is granted when composite application is made comprising the bonus issue as well as the fresh issue of shares to Indian residents.
6. The company should leave at least 40% of the increased paid-up capital as free reserves after issuing the bonus share capital Redemption Reserve and Investment. Allowance reserve form part of free reserves.
7. Capital reserve derived out of revaluation of assets either in cash or without cash are to be excluded while arriving at the balance reserve of 40%. Even the contingent liability having bearing on net profit of the company should be taken into account.
8. Issue of bonus shares in lieu of dividend will not be permitted.
9. Bonus shares can be issued only when the face value of share is fully paid. If there are any partly paid shares, they are to be converted into fully paid shares by making calls.
10. 30 percent of the average amount of pre-tax profits of the company in the previous three years should yield a return of at least 10 percent of the increased capital.
11. The shareholders should approve the proposed bonus issue, before the application is filed to the SEBI for permission.
12. The resolution approving the decision should clearly show their opinion on the management's intention regarding the rate of dividend payable on the government, when the company in the year immediately after bonus issue is made.

13. Atleast 12 months should lapse from the date of earlier sanction of bonus issue by the government, when the company makes fresh issue to bonus shares.
14. The company should file the application to the SEBI within one month from the date of taking decision by the Board of Directors.
15. The company issuing bonus shares should satisfy that it has not defaulted in paying statutory dues to employees, such as P.F, etc.
16. The company should not also be at fault regarding the payment of installments towards term loans to financial institutions. No objection certificate from financial institutions should be produced to the effect.
17. When two applications are filled simultaneously for issue of bonus shares and rights shares, bonus shares application will be considered first.
18. If the companies having foreign shareholding are not likely to expand the business and if their profits are very high, such company should reduce foreign holding before the issues of bonus shares.

Provisions of Indian Companies Act Regarding Dividend

The declaration and payment of dividend is an internal matter of the company. The articles of the company provide for declaration and payment of dividend. The Board of Directors who are the managers of the company decide about the allocation of profit well within the framework of Articles and provisions of the Indian Companies Act, 1956. Table-A of the Act deals with the declaration of dividend. Following rules are to be followed regarding dividend declaration :

(i) The dividend should be paid to the shareholders of the company, if so authorised by its Articles, on the paid-up value of shares U/S 93 of the Indian Companies Act.

(ii) Rules 85 to 94 of Table-A provide that:

  (a) A company may declare dividend in its general body meeting provided it does not exceed the amount recommended by the board of directors.

  (b) The board of directors may from time to time pay the members such interim dividends as appears to it to be justified by the profits of the company.

  (c) Notice of dividend should be posted to those who are entitled to receive it.

(d) The directors may transfer any amount they think proper to the reserve fund which may be utilised for any contingencies.

(e) When a dividend has been declared, it becomes a liability of the company to the shareholders from the date of its declaration but no interest can be claimed on it.

(iii) The company should declare dividend only out of profits, namely, (1) Current profits, (2) Past accumulated profits, (3) Money provided by the central or state government for the payment of dividend in pursuance of a guarantee given by the company.

(iv) The company cannot declare dividend out of capital [Sec. 205(i)]. If the board of directors declare dividend out of capital, they are personally liable to make good such loss to the company.

(v) Provision for depreciation on fixed assets for the current year or for past years (if not already provided) should be made before arriving at divisible profits. (However the central government may allow the company to declare divided without making any provision for depreciation).

(vi) 10% of the profits have to be transferred to the general reserve.

(vii) The Act also provides that the capital profits can be utilised for payment of dividend provided: *(a)* The Articles should not prohibit such declaration. *(b)* The capital profit has been realised in cash and *(c)* They remain as profit after revaluation of all assets and liabilities.

(viii) Current losses are to be made good out of accumulated profits, if accumulated profits are to be utilised for declaring dividend.

(ix) Dividend should be paid only in cash. However, the dividend can be paid in the form of bonus shares, if Articles of the company permit to issue such shares and when all legal formalities have been observed by the company relating to issue of bonus shares.

(x) Partly paid shares should be made up into fully paid shares before the bonus shares are issued.

(xi) Dividend shall be paid only to the registered members of the company, *i.e.*, to those whose names are found in the Register of Members on the date of declaration of dividend to members or to the holders of dividend warrants if it is issued by the company (Section 206).

(xii) The declared dividend should be paid within 42 days from the date of declaration (Section 207). The defaulting director shall be liable for punishment of seven days simple imprisonment or fine or both. However, the payment of divided can be delayed in the following cases:

- *(a)* The operation of law of in solvency against the shareholder.
- *(b)* Where right to receive dividend is pending decision.
- *(c)* In compliance of the decisions of the shareholders.
- *(d)* Where it is not due to the default of the company.
- *(e)* Adjustment of money by the company towards the debt due by the share holders.

(xiii) As per the provisions in the Articles of the company the directors can declare "Interim Dividend."

(xvi) The unclaimed dividend which is transferred to unpaid dividend account remains for 3 years from the date of such transfer, it should be transferred to central government's General Revenue Account." The RBI will issue a receipt to the company for such transfer. The last known address of the shareholder should also be given.

POINTS TO REMEMBER

Factors influencing Dividend Policy:

(1) Financing policy of the company.
(2) Liquidity of funds.
(3) Dividend policy of competitive concerns.
(4) Past dividend rates.
(5) Debt obligation.
(6) Ability to borrow.
(7) Growth needs of the company.
(8) Profit rates.
(9) Legal requirements.
(10) Policy of control.
(11) Corporate taxation policy.
(12) Tax position of share holders.
(13) Effect of trade policy.
(14) Attitude of interested group.

Dividend Practices:

(1) Constant dividend per share.
(2) Constant percentage of net earnings.
(3) Small constant dividend per share + Extra dividend.
(4) Dividend as a fixed percentage of market value.

Forms of Dividends:

(1) Scrip dividend.
(2) Bond dividend.
(3) Property dividend.
(4) Cash dividend.
(5) Stock dividend.

Objectives of Stock Dividend:

(1) Conservation of cash.
(2) Lowering rate of dividend.
(3) Financing expansion Programs.
(4) Transferring the formal surplus and reserves to the share holders.
(5) Enhanced prestige.
(6) Widening share market.
(7) True presentation of earning capacity.

Advantages of Stock Dividends:

For the company

(1) Maintenance of liquidity position.
(2) Satisfaction of share holders.
(3) Economical issue of capitalisation.
(4) Remedy for under capitalisation.
(5) Enhanced prestige.
(6) Widening the share for market.
(7) Finance for expansion programmes.
(8) Conservation of control.

To the Investors

(1) Increase in their equity.
(2) Marketability of shares is increased.
(3) Increased income.
(4) Increased demand for shares.

Disadvantages:

For the company

(1) It leads to over capitalisation.
(2) Increases the liability of the company.
(3) It prevents new investors.
(4) Misuse of funds.

For the Investors

(1) Disappointment of share holders.
(2) It lowers the market value of shares.

STUDY QUESTIONS

Part - A

(2 Marks questions — Answer in 4 lines)

1. What do you mean by dividend policy?
2. Name the different types of dividend by a joint stock company?
3. What do you mean by scrip dividend?
4. What is Bond dividend?
5. What is Stock dividend?
6. What is Cash dividend?
7. What is Property dividend?
8. What do you mean by Bonus Share?
9. State the implication of Capitalising the reserve?
10. What do you mean by "Free Reserve"?

Part - B

(8 marks questions — Answer in 30 lines)

1. Analyse the significance of dividend policy.
2. Analyse the factors which determine the dividend policy.
3. State and analyse the different types of dividends that a company can declare and pay.
4. Distinguish between share dividend and cash dividend.
5. State the merits and demerits of stock dividend.
6. Give a note on the guidelines issued by the Government of India regarding bonus shares.

Part - C

(15 Marks questions — Answer in 3 pages each)

1. What do you **mean** by Stable Dividend Policy? Why is should be followed? What are the consequence of changing a stable dividend policy?
2. State the advantages and disadvantages of stock dividend to the company and the shareholders. **(B.U., Apr. '99)**
3. "Liberal dividend policy followed by a company is not always in the interest of its shareholders." Explain.
4. Discuss some of the important practices followed for the payment of dividend?
5. Explain the provisions regarding dividend as stated in the Indian Companies Act.

6

WORKING CAPITAL MANAGEMENT

Working Capital Management – Meaning – Concepts – Determinants of Working Capital Requirement – Cash Management – Receivable Management and Inventory Management (Concepts Only)

WORKING CAPITAL

A business unit or an industrial establishment requires two types of finance, *viz.*, long-term finance and short-term finance. Long-term finance is required to meet capital expenditure requirements. Short-term finance or funds are needed to meet the day-to-day requirement of the business unit. The exploitation of capital assets can be had only by working capital. It lubricates the wheels of fixed assets. This facilitates the industrial units to have continuous production.

Working capital may be regarded as the life blood of a business. Its effective provision can do much to ensure the success of a business while its inefficient management can lead not only to loss of profits but also to the ultimate downfall of what otherwise might be considered as a promising concern. Much has been rightly made of the long-term planning of capital projects, but the cost to industry due to inadequate planning in the use of working capital is immeasurable. A study of working capital is of major importance to internal and external analysis because of its close relationship with the day-to-day operations of a business. As pointed out by Ralph, Kennedy and Steward McMuller, the inadequacy or mismanagement of working capital is the leading cause of business failures. Working capital is that portion of the assets of a business which are used in or related to current operations, and represented at any one time by the operating cycle of such items as against receivables, inventories of raw materials, stores, work-in-progress and finished goods, merchandise, notes or bills receivables and cash. The assets of this type are relatively temporary in nature. In accounting, 'Working capital is the difference between the inflow and outflow of funds. In other words, it is the net cash inflow. It is defined as the excess of current assets over current liabilities and provisions. In other words, it is 'net current assets or net working capital.' This, definition of working capital is qualitative in character. Current assets and current liabilities are listed below.

CHART OF CURRENT ASSETS AND LIABILITIES

Current Assets	*Current Liabilities*
1. Cash and bank balances.	1. Short-term borrowings including bill purchased and discounted from banks and others.
2. Investments (marketable securities): Government and other Trustee securities (other than for long-term purpose, *e.g.*, Sinking Fund, Gratuity Fund etc.)	2. Unsecured loans maturing within one year.
3. Fixed deposits with banks. (Maturing within one year).	3. Public deposits maturing within one year.
4. Receivables arising out of sales other than deferred receivables (including bills purchased and discounted by bankers).	4. Sundry creditors (trade) raw materials and consumable stores and spares.
5. Instalments of deferred receivables due within one year.	5. Interest and other charges due for payment.
6. Raw materials and components used in the process of manufacturing including those in transit.	6. Advance/Progress payments from customers.
7. Stocks-in-process including semi-finished goods.	7. Deposits from dealers selling agents etc.
8. Finished goods including goods in transit.	8. Instalments on term loans, deferred payment credits, debentures, and long-term deposits payable within one year.

9. Other consumable spares.	9. Statutory liabilities: *(a)* Provident fund dues. *(b)* Provision for taxation. *(c)* Sales-tax, excise, etc. *(d)* Statutory obligations towards workers. Miscellaneous current liabilities. *(a)* Dividends. *(b)* liabilities for expenses. *(c)* gratuity payable within one year *(d)* any other payment due within 12 months.
10. Advance payment for tax.	
11. Pre-paid expenses.	
12. Advances for purchase of raw materials, components and consumable stores.	
13. Deposits kept with public bodies, etc., for normal business operation (*e.g.*, earnest deposit kept by construction companies, etc., maturing within the normal operating cycle.)	
14. Money receivable from contracted sale of fixed asset during the next 12 months.	

Working capital represents the total of all current assets. In other words, it is 'gross working capital.' It is also know as circulating capital or current capital, for current assets are rotating in their nature. Where current liabilities and provisions exceed current assets, the difference is referred to as, negative working capital. This situation does not generally exist in a business firm because this is generally a situation of crisis. Working capital is often referred to as, 'circulating capital.' The use of the term 'circulating capital' instead of 'working capital'; indicates that its flow is circular in nature. At the beginning of a business venture, cash is provided by owners and lenders. A part of this cash is invested in tools, machinery, furniture, equipment, building and others forms of fixed assets which are not to be sold during the normal course of business. The remaining cash is used as working capital to meet the current requirements of a business enterprise such as the purchase of services, raw materials, or merchandise. When a firm's products or finished goods are sold, it has what is know as cash or receivables. When receivables are collected, more cash is available for the purchase of raw materials or merchandise and services. This flow of cash into production and so on, illustrates the circular flow of working capital. The term circulating capital is frequently used to denote those assets which are changed with relative rapidity from one form to another. The working capital is essentially the circulating capital as has been admirably summed by Brown and Harward, who compare it with a river which is always there but, whose water level is constantly changing. However, some transactions are totally independent of the circular process, for they have no link with operational flow. Borrowing from one source to repay the past loans from another source is one such transaction; redeeming capital or debentures by a fresh issue of shares is another. Working capital is but one segment of the capital structure of a business but it constitutes an interwoven part of the total integrated business system. Therefore, neither it be regarded as an independent entity; nor can the working capital decisions be taken in isolation. Working capital, as an accountant defines, it, is the difference between current assets and current liabilities. This over-simplified definition simply tells us how working capital is calculated. One must, however, look beyond this mere 'Subtraction', to discover the true meaning of the term. In this connection, Smith and Ashburne have sounded a note of caution that sans the meaning of working capital its mere computation will be futile. No adequate understanding of the working capital position of a firm can be had from an inspection of its annual balance sheet if the business is subject to considerable fluctuations in seasonal sales or production. For this reason, any analysis, to be sufficiently representative of the actual state of affairs, should be based upon a shorter period.

'Float' is the amount of money required to get into business. This is the minimum amount necessary for maintaining a going concern which is in a position to serve its customers. This amount of float in the form of cash, inventory, and other current assets is the minimum cushion needed to support a business. A business needs working capital over and above the float. The requirements of a business, moreover, are governed by the rate of its turnover, type of credit, the seasonality of its operations, break-even point and other general considerations. The two parts of the term 'working capital' often give rise to misunderstanding. If the term working means contributing something to profits, it implies a distinction between the capital which makes such a contribution and the capital which does not. To avoid the notion of non-productivity the meaning of the term working is limited to the capital which is consumed during a fiscal period in creating current income. For our present purpose, working capital refers to funds which are used during an accounting period to generate a current income of a type which is consistent with the major purpose of a company's existence. Thus, by definition, non- working capital becomes funds which do not produce current income or, if they do produce current income, they do not generate an income of a type which is consistent with a company's existence. It may be noted that in this concept the distinction between working and non-working capital rests upon what the funds are doing and not upon the form in which they happen to exist. Working capital funds are different from working funds in a business. Working funds are the total resources of a business concern and include internal and external equities, which are sunk in current and fixed assets. Working capital funds, however, are sunk only in the current assets of a concern.

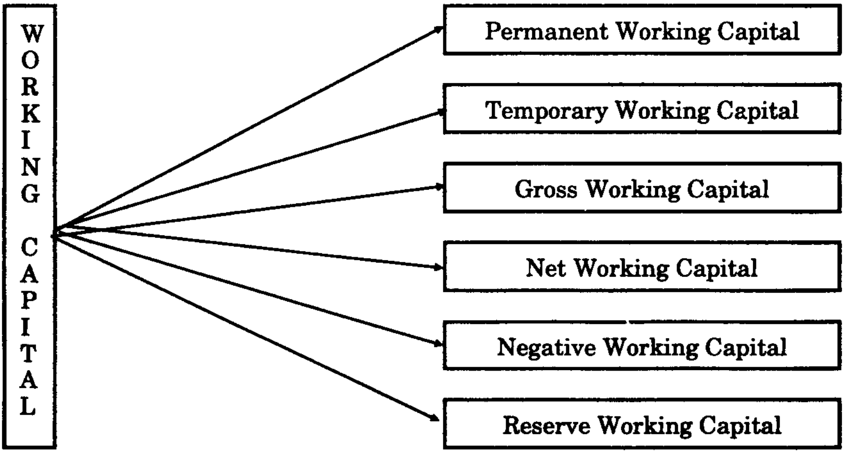


Fig. 6.1 Types of working capital

(1) Permanent Working Capital

It means the minimum amount of investment in all current assets which is regarded at all times to carry on minimum level of business activities. The operating cycle is a continuous process and therefore, the need for current assets. But, the magnitude of current assets increases and decreases over time. There is always a minimum level of current assets required at all times by the firm to carry on its business operation. This minimum level of current assets is known as permanent working capital or fixed working capital. Tandon Committee has named it as 'core current Assets'.

Features of Permanent Working Capital

(1) Amount of permanent working capital remains in the business in one form or another.

(2) There is a positive correlation between the amount of permanent working capital and the size of the business.

(3) Permanent working capital should be financed out of long-term funds.

(2) Temporary Working Capital

This is also called the fluctuating or variable working capital. The amount of temporary working capital keeps on changing depending upon the changes in production and sales. For example, extra inventory of finished goods will have to be maintained to support the peak periods of sale and the investment in receivables may also increase during such period. On the other hand, investment in raw material, work-in-progress and finished goods will decrease, if the market is slack. The extra working capital required to support the changing production and sales activities is known as temporary working capital.

(3) Gross Working Capital

It is the amount of funds invested in the various components of current assets. This concept has the following advantage:

(i) Finance managers are mainly concerned with management of current assets (gross working capital).

(ii) It enables a firm to release the greatest returns on its investment.

(iii) It enables a firm to plan and control the funds at its disposal.

(iv) It helps in the fixation of various areas of financial responsibility.

(v) It helps the finance manager to plan for sources of funds.

(4) Net Working Capital

It is the difference between current assets and current liabilities. The concept net working capital enables a firm to determine the exact amount available at its disposal for operational requirements. It reflects the company's liquidity position.

(5) Negative Working Capital

When current liabilities exceed current assets negative working capital emerges. Such a situation occurs when a firm is nearing a crisis of some magnitude.

(6) Reserve Working Capital

It refers to the short-term financial arrangement made by the business units to meet uncertain changes or to meet uncertainties. Business firms are always exposed to risks which may be controllable or uncontrollable. In the event of happening of such events, reserve working capital strengthen the capacity of the company to face the challenges.

Cash→RM→WIP→Finished Goods→Sales→Debtors→B/R→Cash

Fig. 6.2 Flow of Cash

The Need for Working Capital

A firm has to make profit to maintain its image in the capital market. The investors will also be looking forward to the continuous growth of profitability. Gradual increase in profit will result in capital growth of the firm. to earn substantial profit, sales volume has to be increased. It is observed that the sale of goods will not immediately be converted into cash, when the sale transactions are more credit in nature. There will be a time lag. Additional capital is required to have uninterrupted business operations, the amount will be locked up in the current assets like accounts receivable, stock, etc. This actually happens due to the 'Cash Cycle' or 'Operating Cycle'. By the time the cash is converted back to cash [Cash to Stock to Sales to Account Receivable to Cash]. The firm needs extra funds and hence the need for working capital. If this is not provided, the business operations will be affected to a greater extent and hence this part of finance has to be managed well.

MEANING OF OPERATING CYCLE OR WORKING CAPITAL CYCLE

The duration of time required to complete the following cycle of events in case of a manufacturing

(1) Conversion of cash into raw materials.

(2) Conversion of raw materials into work in process.

(3) Conversion of work in process into finished goods.

(4) Conversion of finished goods into debtors and bills receivables through sales.

(5) Conversion of debtors and bills receivables into cash.

The operating cycle of a trading firm has the following cycle of events:

(i) Cash into inventories.

(ii) Inventories into accounts receivables and

(iii) Accounts receivables into cash.

Therefore in the case of a 'Trading firm', the operating cycle will include the length of time required to convert.

(i) Cash into inventories.

(ii) Inventories into accounts receivables and

(iii) Accounts receivables into cash.

In the case of service and financial firms the operating cycle include the length of time taken for

(i) Conversion of cash into debtors, and

(ii) Conversion of debtors into cash.

Operating Cycle of a Trading Firm is as follows:

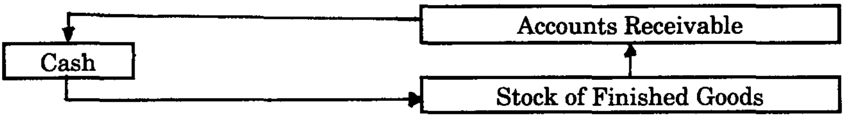


Fig. 6.3 Operating Cycle

Problems Associated with Excess and Inadequate Working Capital

Both the excessive and the inadequate working capital positions are dangerous from the firm's point of view. Excess working capital do not earn any return for the firm. Shortage of working capital impairs the firm's profitability, because of production interruptions.

Dangers of Excess Working Capital

(1) It results in unnecessary accumulation of inventories. Thus the chances of inventory mishandling, waste, theft and losses increase.

(2) It is an indication of defective credit policy and slack collection period. Consequently, higher incidence of bad debts adversely affects profits.

(3) Excessive working capital makes management complacent which degenerates into managerial inefficiency.

(4) Tendencies of accumulating inventories to make speculative profits grow. This may tend to make dividend policy liberal and difficult to cope with in future when the firm is unable to make speculative profits.

(5) Excess availability of cash tempts the executives to spend more.

Dangers of Inadequate Working Capital

1. It stagnates growth. It becomes difficult for the firm to undertake profitable projects due to non-availability of the working capital funds.

2. It becomes difficult to implement operating plans and achieve the firm's profit target.

3. Operating inefficiencies creep in when it becomes difficult even to meet day-to-day commitments.

4. Fixed assets are not efficiently utilised for the lack of working capital funds. Thus, the rate of return on investment slumps.

5. Paucity of working capital funds renders the firm unable to avail of attractive credit opportunities etc.

6. The firm loses its reputation when it is not in a position to honour its short-term obligations. As a result, the firm faces tight credit terms.

7. It directly affects the liquidity position to honour its short-term obligations. As a result, the firm faces tight credit terms.

8. It directly affects the liquidity position of the business firm.

Therefore every firm should aim at maintaining a right amount of working capital on a continuous basis.

Determinants of Working Capital

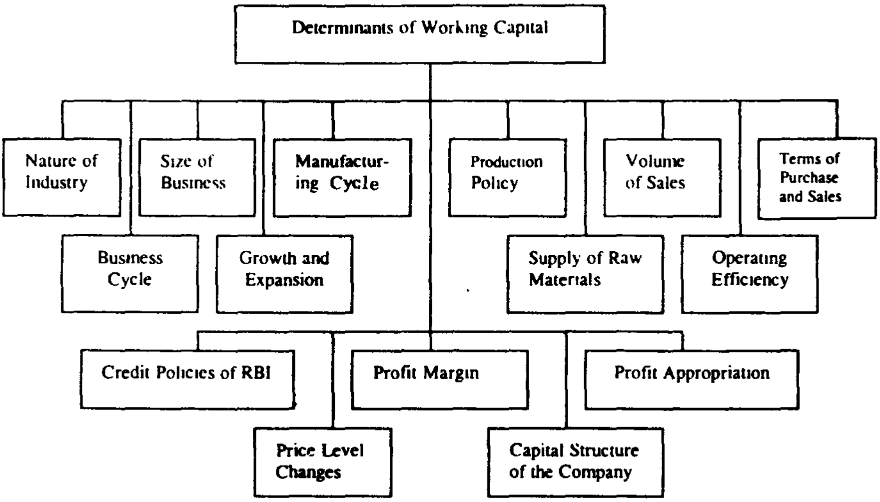


Fig. 6.4 Determinants of Working Capital

A large number of factors influence working capital needs of a firm. the basic objective of working capital management is to manage the firm's current assets and current liabilities in such a way that a satisfactory level of working capital is maintained.

The following factors determine the amount of working capital:

1. Nature of Industry: The composition of current assets is a function of the size of a business and the industry to which it belongs. Small companies have smaller proportions of cash, receivables and inventory than large corporations. This difference becomes more marked in large corporations. A public utility concern, for example, mostly employs fixed assets in its operations, while a merchandising department depends generally on inventory and receivables. Need for working capital are thus determined by the nature of an enterprise.

2. Size of Business: The size of business has also an important impact on its working capital needs. Size may be measured in terms of a scale of operation. A firm with larger scale of operation will need more working capital than a small firm.

3. Manufacturing Cycle: Longer the manufacturing process, the higher will be the requirements of working capital and vice versa. This is because of the fact that highly capital intensive industries require a large amount of working capital to run their sophisticated and long production process. On the same principle, a trading concern requires a much lower working capital than a manufacturing concern.

4. Production Policy: The production policies pursued by the management have a significant effect on the requirements of working capital of the business. The production schedule has a great influence on the level of inventories. The decision of the management regarding automation, etc., will also have its effect on working capital requirements. In case of labour intensive industries the working capital requirement will be more. While in case of a highly automatic plant, the requirements of long-term funds will be more.

5. Volume of Sales: This is the most important factor affecting the size and components of working capital. A firm maintains current assets because they are needed to support the operational activities which result in sales. The volume of sales and the size of the working capital are directly related to each other. As the volume of sales increases, there is an increase in the investment of working capital.

6. Terms of Purchases and Sales: A firm which allows liberal credits to its customers may enjoy higher sales but will need more working capital as compared to a firm enforcing strict credit terms. The working capital requirements are also affected by the credit facilities enjoyed by the firm. A firm enjoying liberal credit facilities from its suppliers requires, lower amount of working capital as compared to a firm which does not enjoy such liberal credit facilities. A firm has credit sales policy with cash purchases will have always more strain on the working capital and it complicates the issue of financial management.

*7. **Business Cycle:*** Business expands during the period of prosperity and declines during the period of depression. Consequently, more working capital is required during the period of prosperity and less during the period of depression.

Under boom, additional investment in fixed assets may be made by some firms to increase this productive capacity. This act of the firm will require further assets and current assets under boom period, the firms generally resort to substantial borrowings.

On the other hand, when there is a decline in the economy, sales will fall and consequently, the levels of inventories and book debts will also fall. Under recessionary conditions, the firms try to reduce their short-term borrowings.

Seasonal fluctuations not only affect the working capital requirement but also create production for the firms. During the periods of peak demand, increasing production may be expensive for the firm. Similarly, it will be more expensive during the slack periods when the firm has to sustain its working force and physical facilities without adequate production and sales. A firm may, thus follow a policy of steady production, irrespective of the seasonal changes, in order to utilise its resources to the fullest extent. Such a policy will mean accumulation of inventories during the off season and their quick disposal during the peak season. The increasing levels of inventories during the slack season will require increasing funds to be tied up in the working capital for some months. Unlike the cyclical fluctuations, the seasonal fluctuations generally conform to a steady pattern. Therefore, financial arrangement for seasonal working capital requirements can be made in advance. However, the financial plan or arrangement should be flexible enough to take care of some abrupt seasonal fluctuations.

*8. **Growth and Expansion:*** If a business firm has ambitious plan for expansion, it requires more working capital, to fulfill such requirements. Growth and expansion in business is more essential to exploit the available business opportunity and to increase the existing market share.

9. Fluctuations in the Supply of Raw Materials: Certain companies have to obtain and maintain large reserves of raw materials due to their irregular sales and intermittent supply. This is particularly true in case of companies requiring special kind of raw materials available only from one or two sources. In such a case a large quantity of raw materials has to be kept in store to avoid any possibility of the production process coming to a dead halt. Thus, the working capital requirements in case of such industries would be large.

10. Price Level Changes: The increasing shifts in price levels make the functions of financial manager difficult. He should anticipate the effect of price level changes on working capital requirements of the firm. Generally, rising price levels will require a firm to maintain higher amount of working capital. The same levels of current asses will need increased investment when prices are increasing. However, the companies which can immediately revise their product prices with rising price levels will not face a severe working capital problem. Further, the effects of increasing general price level will be felt differently by the firms as individual prices may move differently. It is possible that some companies may not be affected by the rising prices while others may be badly hit by it. Thus the effects of rising prices will be different for different companies. Some will not have to face the working capital problem, while the working capital problems of others may be aggravated.

11. Operating Efficiency: The operating efficiency of the firm relates to the optimum utilisation of resources at a minimum cost. The firm will be effectively contributing to its working capital if it is efficient in controlling the operating costs. The use of working capital is improved and pace of the cash cycle is accelerated with operating efficiency. Better utilisation of resources improves profitability and thus, helps in releasing the pressure on working capital. Although it may not be possible for a firm to control the prices of materials or the wages of labour, it can certainly ensure efficient and effective use of its materials, labours and other resources.

12. Profit Margin: Firms differ in their capacity to generate profit from business operations. Some firms enjoy a dominant position, due to quality product or good marketing management or monopoly power in the market and earn a high profit margin. Some other firms may have to operate in an environment of intense competition and may earn low margin of profits. A high net profit margin contributes towards the working capital pool. In fact, the net profit is a source of working capital to the extent it has been earned in cash.

13. Profit Appropriation: Even if net profits are earned in cash at the end of the period, whole of it is not available for working capital purposes. The contribution towards working capital would be affected by the way in which profits are appropriated. The availability. The availability of cash generated from operations thus, depends upon taxation, dividend and retention policy and depreciation policy.

Taxes must be paid out of profits. Tax liability is unavoidable and adequate provisions should be make for it in working capital planning. If the tax liability increases, it will impose an additional strain on working capital. The financial manager must do tax planning in order to avail the benefits of all sorts of tax concessions and incentives.

The firm's policy to retain or distribute profits also has a bearing on working capital. Payment of dividend consumes cash resources and thus, reduces firm's working capital to that extent. If the profits are retained in the business, the firm's working capital position will be strengthened. A number of factors should be evaluated by the financial manager in deciding whether profits will be retained or distributed. A firm may follow the policy of paying a constant amount of dividend every year. In the years the firm makes high profits its liquidity position will become strong; but, in the years it does not earn sufficient profits, the preserved cash resources will be utilised to pay dividends. Sometimes a company wants to pay dividend but at he same time it does not want to drain away its cash resources. The alternative in such a case is to declare bonus shares (stock dividend) out of the past accumulated profits.

The depreciation policy, through its effect on tax liability and retained earnings, has an influence on working capital. Depreciation is tax deductible. The higher the amount of depreciation, the lower the tax liability and more the cash profit. Similarly, the amount of net profits will be less if higher depreciation is charged. If the dividend policy is linked with the net profits, the firm can pay less dividend by providing for more depreciation. Thus, depreciation is an indirect way of retaining profits and preserving the firm's working capital position.

14. Credit Policies of Reserve Bank of India: If the Reserve Bank of India follows selective and restrictive credit policies, the working capital position becomes difficult. Suppliers insist on advance payment, while it will be difficult to sell, unless competitive credit terms are offered to the customers.

15. Capital Structure of the Company: If shareholders have provided some funds towards the working capital needs also (at least to satisfy the permanent working capital needs) the management will find it relatively easy to manage working capital. If the company has to depend entirely upon outside sources for both permanent and temporary working capital needs, it faces an uphill task under dear money conditions.

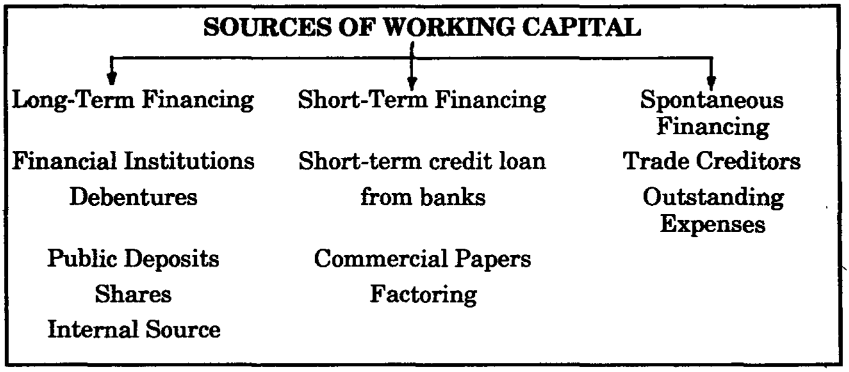


Fig. 6.5 Sources of Working Capital

The need of working capital is increased by raising prices of end products and relative inputs. On the other hand, the government and monetary authorities play their own role to curb the malice in periods of inflation. The control measures often take the form of dear money policy and restrictive credit. Financing of additional working capital requirements in such an environment becomes a real problem to a finance manager of a concerned unit. Commercial banks play the most significant role in providing working capital finance, particularly in the Indian context. In the view of the mounting inflation, the Reserve Bank of India has taken up certain fiscal measures to check the money supply in the economy. The balancing need has to be managed either by long-term borrowings or by issuing equity or by earning sufficient profits and retaining the same for coping with the additional working capital requirements. The first choice before a finance manager, when a part of additional working capital is not provided by banks, is to take the long-term sources of finance.

1. Long-Term Financing

(a) Loans from Financial Institutions: The option is normally ruled out, because financial institutions do not provide finance for working capital requirement. Further this facility is not available to all companies. For small companies, this option is not practical.

(b) Floating of Debentures: The probability of a successful flotation of debentures seems to be rather meagre. In Indian capital market, floating of debentures has still to gain popularity. Debenture issues of companies in private sector not associated with certain reputed groups generally fail to attract investors to invest their funds in companies. In this context, the mode of raising funds by issuing convertible debentures/bonus is also gaining ground.

(c) Accepting Public Deposits: The next alternative to the above is public deposits. The issue of tapping public deposits is directly related to the image of the company seeking to invite public deposits. But, the problem, of low profitability in many industries is very common.

(d) Issue of Shares: With a view to financing additional working capital needs, issue of additional equity shares could be considered. Many Indian companies have still to go ahead to command respect of investors in this context. Low profit margin as well as lack of knowledge about company make the success of a capital issue very dim.

(e) Raising Funds by Internal Financing: Raising funds from operational profits poses problems for many companies, because prices of their end-products are controlled and do not permit companies to earn profits sufficient to pay reasonable dividend and retain profits to cover margin money requirements to finance additional working assets; still a largely feasible solution lies in increasing profitability through cost control and cost reduction measures managing the cash operating cycle, rationalising inventory stocks, and so on.

2. Short-Term Financing

Short-term financing refers to those sources of short-term credit that the firm must arrange in advance. These sources include short-term bank loans, commercial papers and factoring of receivables.

3. Spontaneous Financing

Spontaneous financing refers to the automatic sources of short-term funds. The major sources of such financing are trade credit (Creditors and bills payable) and outstanding expenses. Spontaneous sources of finances are cost free. Therefore, a firm would like to finance its current assets from spontaneous sources as much as possible. Every firm is expected to utilise spontaneous sources to the fullest extent. Thus, the real chance of financing current assets (not financed through spontaneous sources) is between short-term and long-term sources.

WORKING CAPITAL MANAGEMENT

Working capital management refers to the management of both current assets and current liabilities. In other words, it is a study of relationship between current assets and current liabilities. The main aim of financial management is to supply continuous flow of funds to administer the day-to-day activities. The size of this capital must not be in excess nor inadequate. It should be adequately supplied to increase the wealth of the organisation.

Working capital management involves two main processes:

(a) Determining the size of the amount of working capital.
(b) Arranging the sources of working capital.

(a) Determining the size of the amount of working capital: It is one of the important functions of the finance manager. he has to look into the details of the factors that affect the working capital. It is determined on the basic of size, nature and length of the manufacturing cycle. The policy of the management towards sales and purchases also helps in the process of determining the size of the working capital.

(b) Arranging the sources of working capital: Once the size of the working capital is determined, it is the duty of financial manager to select the right sources of working capital. This mainly depends on the availability of the sources for funds. The investment of funds on current assets also facilitates the financial manager to arrange for working capital requirements. in the process, different short-term accounting ratios will be used as a tool by the financial manager to have continuous flow of funds.

Working capital management in practiced by taking into account the following aspect they are:

(a) Management of cash.
(b) Accounts receivables management.
(c) Inventory management.

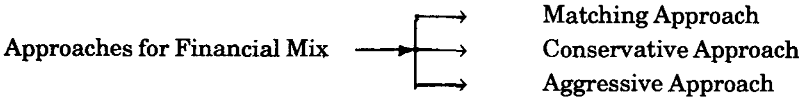


Fig. 6.6 Approaches for Determining the Financial Mix

*1. **Matching Approach or Hedging Approach:*** When the firm follows matching approach, long-term financing will be used to finance permanent working capital. Temporary working capital should be financed out of short-term funds. The rationale underlying matching approach is that the maturity of sources of funds should match the nature of assets to be financed.

*2. **Conservative Approach:*** According to this approach all requirements of funds should be met from long-term sources. Short-term sources should be used only for emergency requirements. Under a conservative plan, a firm finances its permanent current assets and a part of the temporary current assets with a long- term financing. In periods when the firm has no temporary current assets, it stores liquidity by investing surplus funds in marketable securities. Conservative approach is less risky but more costly as compared to matching approach. In other words it is low profit low risk approach.

*3. **Aggressive Approach:*** Under an aggressive policy firm uses more short financing than warranted by the matching plan, *i.e.*, the firm finances a part of its permanent current assets with short-term financing. On the other hand more use of short-term financing makes the firm more risky.

MANAGEMENT OF CASH

Cash is the most liquid asset that a business owns. It includes money and such instruments as cheques, money orders and bank drafts. Cash in the business enterprise may be compared to the blood in the human body. Just as blood gives life and strength to the human body, cash imparts life and strength; profits and solvency to the business organisation. Though firms differ in a considerable degree in terms of nature of business, capital structure, personnel employed, risk technology and so on, they have in common the basic mechanism involving conversion of funds in to saleable products and back in to liquid form. Cash in its ultimate state yields no return as such it is barren.

One of the most urgent confronting corporate financial management is to make cash balances work harder. The essence of effective management is the synchronisation of the rates of receipts with the rates of outflow of cash disbursements. Planning for cash requirements is an essential management function of any business. It is not enough for an undertaking to make a profit. Cash resources should be planned to finance a cash flow, without which many otherwise efficient and profitable businesses have encountered financial difficulties. A corporate financial officer should plan his cash and credit sources in such a way that the normal operations of the corporation are not disrupted by a shortage of cash and further the opportunities for capital expenditure are not lost because of liability to finance them. The creditworthiness of a business is one of its most valuable assets. A management should, therefore, ensure that there are no hold-ups in the payment of its dues because it would earn the reputation of being a bad pay master or else, its creditors may resort to litigation. Unfortunately, the inflow and outflow of funds cannot be synchronised completely. If this were possible, it would not be necessary to maintain more than a minimum of cash or near cash resources. A control of the position is a vital aspect of the financial management of a concern. There should be a balance between cash and cash-demanding activities operations, capital additions, etc. The objectives of cash management are to make the most effective use of funds, on the one hand, and accelerate the inflow and decelerate the outflow of cash on the other. The traditional approach to a determination of technical solvency, which stresses availability of current assets to discharge current liabilities, is viewed as incomplete. In this connection, James Walter has rightly observed that the appropriate topic for discussion appears rather to be whether prevailing cash inflows (plus cash resources) cover existing cash outflows by a sufficient margin to protect against possible reduction in inflows or increments in outflows. A financial manager has to adhere to the five 'Rs' of money management. Those are: *the right quality of money for liquidity considerations, the right quantity whether owned or borrowed, the right time to preserve solvency, the right source, and the right cost of capital, the organisation can afford to pay.*

Objectives of Cash Management

A highly liquid, vital assets is cash. It is needed to meet every type of expenditure. Hence it should be sufficiently made available. If a firm fails to provide funds to meet the obligation, it will be clear indication of technical insolvency of the firm. If the cash position of the firm is strong, it can command business operations. Cash discounts can be obtained on purchases. Obligations can be met immediately. Cost of capital will be minimised. However it cannot also hold cash in an idle way. It should be made productive. Keeping these two views, *viz.*, liquidity and profitability, the following objectives can be identified of cash management.

(1) To make cash payments.

(2) To maintain minimum cash reserve.

(1) To Make Cash Payments: The very objective of holding cash is to meet the various types of expenditures to be incurred in business operations. Several types of expenditures have to be met at different points of time and the firm should be prepared to make such cash payments. The firm should remain liquid to meet the obligations. Otherwise the business suffers. It is observed that 'Cash is an oil to lubricate the ever turning wheels of business, without it, the process grinds to a stop.' Thus one of the basic objectives of cash management is to maintain the image of the organisation by making prompt payments to creditors and to avail cash discount facilities.

(2) To Maintain Minimum Cash Reserve: Another important objective of cash management is to maintain minimum reserve. This means, in the process of meeting obligations on time, the firm should not unnecessarily maintain heavy cash reserves. It cannot keep the cash idle. Excess cash balance should be made productive (this means it should be invested). Maintaining minimum cash reserve is made possible by synchronising cash inflows and outflows through cash budgeting. Cash collection should be expedited and cash outflows should be controlled to conserve cash resources. Thus as far as possible the firm should maintain minimum cash reserve to attain the objective of profitability.

Motives for Holding Cash

Cash is held by the firm with the following motives:

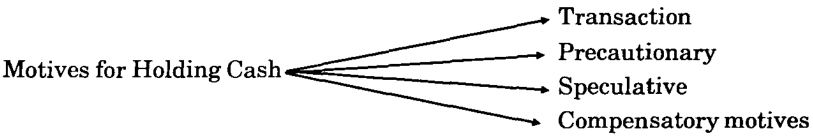


Fig. 6.7 Motives of Holding Cash

1. Transaction Motive: Transaction motive requires a firm to hold cash to conduct its business in the ordinary course. The firm needs cash to make payments. The need to hold cash arises because cash receipts and cash payments are not perfectly synchronised. Sometimes cash receipts exceed cash payments, whereas at other times cash payments are more than cash receipts. For those periods, when cash payments exceed cash receipts, the firm should maintain some cash balance to be able to make the required payments. For transaction purposes, a firm must invest its cash in marketable securities. Usually, the firm will purchase the securities whose maturity corresponds with some anticipated payments.

2. Precautionary Motive: Cash is also maintained by the firms and even by individuals to meet unforeseen expenses at a future date. There are uncontrollable factors like government's policies competition, natural calamities, labour unrest, consumer behavior which will have heavy impact on business operations. In such situations, the firm may require cash to meet additional obligations. Hence, the firm should hold cash reserve to meet such contingencies. However, such reserves should be maintained at a minimum level and can even be invested in very short-term securities which can earn something to the firm. Such investment should have ready liquidity. Otherwise the very purpose will be defeated. Cash is held as a precautionary measure.

*3. **Speculative Motive:*** To take advantage of unexpected opportunities, a firm holds cash for investing in profit-making opportunities. Such a motive is purely speculative in nature.

For example, holding cash to take advantage of an opportunity to purchase raw materials at the reduced price on payment of immediate cash or delay purchases of materials in anticipation of declining prices. Similarly, it may like to keep some cash balance to make profit by buying securities in times when their prices fall on account of tight money conditions.

*4. **Compensatory Motive:*** The commercial banks provide a variety of services to the business units *viz.* offering services, lending credit (money) providing cheques, maintaining accounts, supply of statement of accounts etc. Issue of cheques and supply of periodic accounts statements are provided as a part of the banking business without charging additional burden on the customers. Hence the customers/business houses are expected to maintain some minimum balance of amounts in the S.B. A/c and Current A/cs. (For S.B A/c Rs. 500 - Rs. 1,000 and for Current A/cs Rs. 1,000 to Rs. 2,500). However, the prescription this minimum balance differs from one bank to another bank. Therefore, cash is needed to maintain this minimum balance to business establishment.

Importance of Cash Management

- *(a)* Cash management assumes more importance than other current assets because cash is the most significant and the least productive asset that the firm holds. It is significant because it is used to pay firm's obligations. However, cash is unproductive and as such, the aim of cash management is to maintain adequate cash position to keep the firm sufficiently liquid to use excess cash in some profitable way.
- *(b)* Management of cash is also important because it is difficult to predict cash flows accurately and that there is no perfect coincidence between inflows and outflows of cash. Thus, during some periods, cash outflows exceed

cash inflows, because payments for taxes dividends, excise duty, seasonal inventory build up etc., are met through it. At other times cash inflows will be more than cash payments, because there may be large cash sales and debtors may be realised in large sums promptly.

(c) Cash management is also important because cash constitutes the smallest portion of the total current assets, even then, considerable time of management is devoted for it.

Strategies regarding the following four factors of cash management should be evolved by the firm:

1. ***Cash Planning:*** Cash inflows and outflows should be planned to project cash surplus or deficit for each period of planning. Cash budget should be prepared for this purpose.

2. ***Managing the Cash Flows:*** The inflow and outflow of cash should be properly managed. The inflows of cash should be accelerated, while the outflow of cash should be decelerated as far as possible.

3. ***Optimum Cash Level:*** The firm should decide on the appropriate level of cash balances. The cost of excess cash and the danger of cash deficiency should be matched to determine the optimum level of cash balances.

4. ***Investing Idle Cash:*** The idle cash or precautionary cash balances should be properly invested to earn profit. The firm should decide on the division of such cash balances into bank deposits and marketable securities.

Cash Planning :

Cash inflows and outflows are inseparable parts of the business operations of all firms. The firm needs cash to invest in inventories, receivables and fixed assets to make payments for operating expenses in order to maintain growth in sales and earnings. It is possible that a firm may be making adequate profits, but, may suffer from the shortage of cash as its growing needs may be consuming cash very fast. The 'Cash poor' position of the firm can be corrected if its cash needs are planned in advance. At times, a firm can have excess cash with it, if its cash inflows exceed cash outflows. Such excess cash may remain idle. Again, such excess cash flows can be anticipated and properly invested, if cash planning is resorted to. Thus, cash planning can help anticipate future cash flows and needs of the firm and thus can reduce the possibility of idle cash balances (which lowers firm's profitability) and cash deficits (which can cause the firm's failure).

Cash planning is a technique to plan for and control the use of cash. It protects the financial condition of the firm by developing a projected cash statement from a forecast of expected cash inflows and outflows for a given period. The forecasts may be based on the present operations or the anticipated future operations. Cash plans are very crucial in developing the overall operating plans of the firm.

Cash planning may be done on daily, weekly or monthly basis. The period and frequency of cash planning generally depends upon the size of the firm and philosophy of management. Large firms prepare weekly and monthly forecasts. Medium-size firms usually prepare weekly and monthly forecasts. Small firms may not prepare formal cash forecasts because of the non-availability of information and unsophisticated of operations. But, if the small firms prepare cash projections, it is done on monthly basis. As the firm grows and business operations become complex, cash planning will become inevitable for its continuous success.

Cash Forecasting and Budgeting

Cash budget is the most significant device for planning and controlling the cash receipts and payments. Cash budget is a summary statement of the firm's expected cash inflows and outflows over a projected time period. It gives information on the timing and magnitude of expected cash flows and cash balances over the projected period. This information helps the finance manager to determine the future cash needs of the firm, plan for the financing of these needs and exercise control over the cash and to reach liquidity of the firm.

The time horizon of a cash budget may differ from firm to firm. Monthly cash budgets may be prepared by a firm whose business is affected by seasonal variations. Daily or weekly cash budgets should be prepared for determining the cash requirements if cash flows show extreme fluctuation. Cash budgets for a long interval may be prepared if cash flows are relatively stable.

Cash forecasting: Cash forecasts are required to prepare cash budgets. Cash forecasting may be done on short-term or long-term basis. Generally, forecasts covering period of one year or less are considered short-term, those extending beyond one year are considered long-term.

Short-term forecasts: It covers a periods of one year or less. The important uses of short-term cash forecasts are:

(a) It helps in determining cash requirements.

(b) It helps in anticipating short-term financing.

(c) It helps in managing money market investments.

(a) Short-term forecasts help in determining the cash requirements for a predetermined period to run a business. If the cash requirements are not determined, it would not be possible for the management to know how much cash balance has to be kept, to what extent bank financing be depended upon and whether surplus funds would be available to invest in market securities. To know the operating cash requirements, cash flow projections have to be made by a firm.

(b) Most of the companies depend upon banks for their temporary financing needs. Short-term forecasts pinpoint when the need for temporary financing may arise and when it can be repaid. With such forecasts on hand, it will not be difficult for the finance manager to negotiate short-term financing arrangements with banks. This in fact convinces bankers about the ability of management of a firm to run its business.

(c) The third use of the short-term cash forecasts is to help in managing the investment of surplus cash in marketing securities. A carefully and skilfully designed cash forecast helps a firm *(i)* to select securities with appropriate maturities and reasonable risk, *(ii)* to avoid over or under-investment and *(iii)* to maximise profits by investing idle cash.

Besides the three merits discussed above, short-term cash forecasts serve many other purposes. For example, multi-divisional firms use them as a tool to coordinate the flow of funds among their various divisions as well as to make financial arrangement for the operations. These forecasts may also be useful in determining the margins or minimum balances to be maintained with banks.

Other uses of short-term forecasts are:

(1) Planning the reductions of short and long-term loans;

(2) Scheduling payments in connection with capital expenditure programmes;

(3) Planning of forward purchase of inventories;

(4) Checking accuracy of long-range cash forecasts;

(5) Taking advantage of cash discounts offered by suppliers;

(6) Guiding credit policies.

Short-term Forecasting Methods

Two most commonly used methods of short-term cash forecasting are:

(1) The receipt and disbursements method.

(2) The adjusted net income method.

The receipts and disbursements method is generally employed to forecast for limited periods, such as week or a month. The adjusted net income method, on the other hand, is preferred for longer durations ranging from a few months to a year. both the methods have their pros and cons. The cash flows can be compared with budgeted income and expense items if the receipts and disbursements approach is followed. On the other hand, the adjusted income approach is appropriate in showing a company's working capital and future financing needs.

Receipts and Disbursements Method

Cash flows and outflows are maintained by companies on continuous basis. The prime aim of receipts and disbursements forecasts is to summarise these flows during a predetermined period. In case of those companies where each item of income and expense involves flow of cash, this method is favoured to keep a close control over cash.

The receipts and disbursements method involves forecasting of each item of receipts and payments. The most important source of cash receipts is sales. Developing a sales forecast is the first step in preparing a cash forecast. All precautions should be taken to forecast sales as accurately as possible. Sales can be for cash or on credit basis. In the case of cash sales, cash is received at the time of sales. On the other hand, cash is realised after sometime if sale is on credit. The time taken in realising cash for credit sales depending upon the firm's credit policy is reflected in the average collection period.

It can easily be noted that cash receipts from sales will be affected by changes in sales volume and firm's credit policy. To develop a realistic cash budget, these changes should be accounted for. If the demand for the firm's products slackens, sales will fall and the average collection period is likely to be longer which increases the chances of bad debt. In preparing cash budget, account should be taken of sales discounts, returns and allowances and bad debts as they reduce the amount of cash collections from debtors.

Besides sales receipts, cash flows into the firm on account of the sale of assets, dividend and interest. These items are planned in advance and are easily predictable.

Next step in the preparation of cash budget is an estimate of cash outflows. Cash outflows include payments to suppliers for materials and stores, payment to government for taxes, levies etc., payment of dividend and payments for various other operating expenses. Cash will also be disbursed if some fixed assets are acquired. As with sales, purchases may be made on credit or cash basis. In case of cash purchases, cash outflow will be there at the time of the purchase. In case of credit purchase, a time lag will exist between purchase and cash payments. If the firm makes purchases on 45 days term, it will make payment at the end of this period.

It is relatively easy to predict the expenses of the firm over the short run. Firms usually prepare capital expenditure budgets, therefore, capital expenditure is predictable for the purpose of cash budget. Similarly, payments of dividend do not fluctuate widely and are paid on specific dates. Cash outflow can also occur when the firm pays its long-term debt. Such payments are generally planned for and, therefore, there is no difficulty in predicting them.

Once the forecasts for cash receipts and payments have been developed, they can be combined to obtain the net cash inflow or outflow for each month. The net balance for each month would indicate whether the firm has excess cash or deficit. The peak cash requirements would also be indicated. If the firm has a policy of maintaining some minimum cash balance, arrangements must be made to maintain this minimum balance in periods of deficit. The cash deficit can be met by borrowing from banks. Alternatively, the firm can delay its capital expenditure or payments to creditors or postpone payments of dividends.

Thus one of the significant advantages of cash budget is to determine the net cash inflow or outflow so that the firm is enabled to arrange finances. However, the firm's decision on appropriate sources of financing should depend upon factors like cost and risk. Cash budget helps a firm to manage its cash position. It also helps utilising idle cash in better ways. On the basis of cash budget, the firm can decide on investing surplus cash in marketable securities and earn profits.

The most difficult part of forecasting receipts is to estimate receipts. If is very difficult to anticipate the amounts as well as the time of receipts. The reason is that the projections of cash receipts rely heavily on sales forecasts.

Disbursements of cash are easier to forecast. This is because a large portion of costs is fixed and known. Standard payment schedules can also be used to project to timing of cash payments such as wages and salaries, taxes, insurance premium etc. Sometimes difficulty may be there in estimating the capital expenditure cash outlays.

The virtue of the receipts and disbursements method is its capability to give a complete picture of expected cash flows. It is also a sound tool to manage day-to-day cash operations. The method, however, does suffer from some limitations. Because of uncertainty, its reliability may be reduced. For example, collections may be delayed, or there may be an unanticipated demand for large disbursements. Another limitation of this approach is that it fails to highlight the significant movements in the company's working capital.

Adjusted Net Income Method

This method of cash forecasting involves the tracing of working capital flows. It is sometimes called the sources and uses approach. Two objectives of the adjusted net income approach are: *(i)* to project the company's need for cash at some future date and, *(ii)* to show whether the company can generate this money internally and if not, how much it will have to either borrow or raise in the capital market.

In preparing the adjusted net income forecasts, items such as net income, depreciation, taxes, dividends etc., can easily be determined from the company's annual operating budget. Normally, difficulty is faced in estimating working capital changes, specially the estimates of receivables and inventories pose problem because they are influenced by factors such as fluctuations in raw material costs, changing demand for the company's products and possible delays in collections. Any error in predicting these items can make the reliability of forecast doubtful. For projecting working capital ratios relating to receivables and inventories to sales may be used. The major benefit of the adjusted net income method is that it helps in keeping a control on working capital and anticipating financial requirements. The main limitation of the method is that it fails to trace the flows of cash. Thus, this method is not useful in controlling the day to day cash transactions.

Long-Term Cash Forecasting

Long-term cash forecasts are prepared to give an idea of the company's financial requirements are. Once a company has developed a long-term cash forecast, it can be used to evaluate the impact of new product development or plant acquisition on the firm's financial position; three, five or more years in future.

The major uses of the long-term cash forecasts are:

1. It indicates a company's future financial needs, especially for its working capital requirements.
2. It helps in evaluating proposed capital projects. it pinpoints the cash required to finance these projects as well as the cash to be generated by the company to support them.

3. It helps in improving corporate planning. Long-term cash forecasts compel each division to plan for future and to formulate projects carefully. Long-term cash forecasts may be made for two, three or five years.

The receipts and disbursements method and the adjusted net income method, can also be used in long-term cash forecasting.

Managing the Cash Flows

Once the cash budget has been prepared and appropriate net cash flows established, the financial manager should ensure that there does not exist a significant deviation between projected cash flows and actual cash flows. To achieve this, cash management efficiency will have to be improved through a proper control of cash collection and disbursement. The twin objectives in managing the cash flows should be to accelerate cash collections as much as possible and to decelerate or delay cash disbursements as much as possible.

Accelerating Cash Collections

A firm can conserve cash and reduce its requirements for cash balances, if it can speed up its cash collections. Cash collections can be accelerated by reducing the lag or gap between the time a customer pays his bill and the time cheque is collected and funds become available for the firm's use. Within this time gap, the delay is caused by the mailing time, *i.e.*, the time taken by the firm in processing cheques for internal accounting purposes. The amount of cheques sent by customers but not yet collected is called deposit float. The greater the firm's deposit float the longer is the time taken in converting cheques into usable funds. In India, these floats can assume sizable proportions, as cheques normally take a longer time to get realised, than in developed countries. An efficient financial mailing, processing and collection times. Finance manager may use the technique of decentralised collections or 'lock box system', in order to accelerate cash collections.

Lock Box System

In a 'Lock Box System', the firm establishes a number of collection centres considering number of customers and volume of remittances. At each centre, firm hires a post office box and instructs customers to mail their remittances to the box. Firm's local bank is given the authority to pick up cheques directly from the lock box and deposit the cheques in firm's account. For internal accounting purposes of the firm, the bank prepares a detailed statement of cheques picked-up.

Controlling Disbursement

The effective control of disbursement can also help the firm in conserving cash and reducing the financial requirements. While the firm's objective in collecting cash is to speed up collections as much as possible; the objective of disbursements is to slow them down as much as possible. Disbursements arise due to trade credit. The firm should make the payments using the credit terms to the fullest extent. There is no advantage in paying sooner than agreed upon. By delaying payments as much as possible, the firm makes maximum use of trade credit as a source of funds, a source which is interest free.

Paying the Float

The firm may use the technique of playing the float for maximising the availability of funds. The term 'float' means the amount tied up in cheques that have been drawn, but, have not yet been presented for payment for payment. There is always a time lag between the issue of a cheque by the firm and its actual presentment for payment. As a result of this a firm's actual balance at bank may be more than the balance as shown by its books. This difference is called "a payment in float." The longer the float the float period, the greater is the benefit to the firm. A firm can expand the opportunities for playing the float by having many bank accounts at different places.

Determining the Optimum Cash Balance

One of the primary responsibilities of a financial manager is to maintain a sound liquidity position of the firm so that dues may be settled in time. The firm needs cash not only to purchase raw materials and pay wages, but also for payments of dividend, interest, taxes and countless other purposes. The test of liquidity is really the availability of cash to meet the firm's obligation when they become due.

Thus, cash balance is maintained for transactions purposes and an additional amount may be maintained as a buffer or safety stock. The financial manager should determine the appropriate amount of cash balance. Such a decision is influenced by a trade-off between risk and return. If the firm maintains a small cash balance, its liquidity position becomes weak and suffers from a paucity of cash to make payments. But, a higher profitability can be attained by investing release funds in some profitable opportunities. When the firm runs out of cash, it may have to sell its marketable securities, if available, or borrow. This involves transaction costs. On the other hand, if the firm maintains a high level of cash balance, it will have a sound liquidity position by forego the opportunities to earn interest. The potential interest lost on holding large cash balance involves an opportunity cost to the firm. Thus, the firm should maintain an optimum cash balance, the transaction costs and risk of too small a balance should be matched with the opportunity costs of too large a balance.

Investment in Marketable Securities

There exists a close relationship cash and marketable securities. Excess cash should normally be invested in marketable securities which can be conveniently and promptly converted into cash. Cash in excess of "working cash balance requirements" may be held for two reasons. Firstly, the working capital requirements of firm fluctuate because of the elements of seasonality would be needed when the demand picks up. Thus, excess cash during slack seasons is idle temporarily but has a predictable financial needs. A firm holds extra cash because cash-flows cannot be predicted with certainty. Cash balance held to cover the future exigencies is called the precautionary balance and usually is invested in marketable securities until needs.

Instead of holding excess cash for the above mentioned purpose, the firm may meet its precautionary requirements as and when they arise by making short-term borrowing. The choice between the short-term borrowings and liquid assets holding will depend upon the firm's policy regarding the mix of short-term financing.

The excess amount of cash held by the firm to meet its variable cash requirements and future contingencies should be temporarily invested in marketable securities, which can be regarded as near moneys. A number of marketable securities, may be available in the market. As near moneys the financial manager must decide on the portfolio of marketable securities in which the firm's surplus cash should be invested.

Selection of Securities

As the firm invests its temporary transaction balances or precautionary balance or both, its primary criterion in selecting a security will be its quickest convertibility into cash, when the need for cash arises. Besides this, the firm would also be interested in the fact that when it sells the security, it at least, gets the amount of cash equal to the cost of security. Thus, in choosing among alternative securities, the firm should examine three basic features of a security; safety maturity and marketability.

Safety

Usually, a firm would be interested in receiving as high a return on its investments in marketable securities as is possible. But, the higher return yielding securities are relatively more risky. The firm should invest in very safe securities, as the transaction or precautionary balances invested in them are needed in near future. Thus, the firm would tend to invest in the highest yielding marketable securities subject to the constraint that the securities have acceptable level of risk. The risk referred to here is the default risk. The default risk means the possibility of default in the payment of interest or principal on time and default if the amount promised. The default in payment may mean more than one thing. In an extreme case, the security may not be redeemed at all. In a less severe case, the security may be sold at a loss, when firm needs cash. To minimise the chances of default risk and ensure safety of principal of interest, the firm should invest in safe securities.

Maturity

Maturity refers to the time period over which interest and principal are to be made over. The price of long-term security fluctuates more widely with the interest rate changes than the price of short-term security. Interest rates have a tendency to change over a period of time. Because of these two factors, the long-term securities are relatively more risky. For safety reasons, short-term securities are preferred by the firm for the purpose of investing excess cash.

Marketability

Marketability refers to convenience and speed with which a security can be converted into cash. The two important aspects of marketability are price and time. If the security can be sold quickly without loss of price, it is highly liquid or marketable. The government treasury bills fall under this category.

MANAGEMENT OF ACCOUNTS RECEIVABLE

Need

Accounts receivable is a permanent investment in the business. As old accounts are collected new accounts are created. Accounts receivable is a major components of the currents assets. This account emerges because of the existence of credit sales. As this account constitutes a major share (next to inventory), it has got a greater significance in working capital management. Credit sales no doubt increases turnover and profit of the business. But carrying permanently the Account Receivable in the firm involves greater risk.

Hence there is a need for the management to establish to establish the level of accounts receivable. While establishing the level the management has to examine the following aspects:

- *(i)* How best the account receivable contribute to the firm's earnings;
- *(ii)* Whether it is feasible to tie the funds in this asset rather than in some other asset;
- *(iii)* How best the accounts receivable can be reduced without affecting the sales;
- *(iv)* Whether the accounts receivable contribute anything for achieving the objectives of the enterprise.

When these aspects are thoroughly examined, the company can decide about the level of accounts receivable as a major component of working capital. Thus the need for accounts receivable lies in its character as a means to increase the profits.

What is Accounts Receivable?

Accounts receivable is a component of current asset. It shows the amount receivable from the purchasers. Hence it is a "Trade debt" due to the firm from the purchasers who purchase goods or avail service on credit basis. This is called by different names, such as account receivable, trade debtors, sundry debtors, trade receivables etc. This account emerges out of credit sales. Almost all the business enterprises today carry on their business on credit basis. There will be both selling and buying on credit basis and when credit sales take place, the buyers will have little time to pay back the purchase price. This allowance of time smoothers the trade activity and results in good turnover to the business and better profitability. Hence accounts receivable is an account maintained by the firms which shows the amount owing to the firm and it is a permanent investment. It is exhibited on the assets side of the balance sheet under current assets and acts as a major component of working capital.

What is Accounts Receivable Management?

As stated earlier, accounts receivable is a permanent investment and is an ever rolling account. The finance manager has to determine the level of this account suitably so that there will be an easy flow of working capital. The management should see that debtors turn fast. If the debtors turnover velocity, is high then the firm can minimise borrowing for working capital. All this, *viz.*, maintenance of debtors at optimum level, the degree of credit sales to be made, making the debtors turn fast, involves the "Accounts

Receivable management." Thus accounts receivable management is a decision-making process which takes into account the creation of debtors, debtors turnover and minimising the cost of borrowing of working capital due to lacking of funds in accounts receivable. The main objective of accounts receivable management is to maximise sales and profit with liberal but sound credit sales policy.

What Issues Govern the Accounts Receivable?

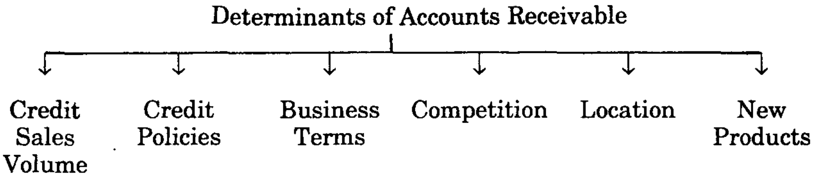


Fig. 6.8 Determinants of Accounts Receivables

There are several issues that govern the accounts receivable. They are as follows.

1. Credit Sales Volume: In order to increase the profit and push sales, many firms will have "Credit Sales." Higher the volume of credit sales, higher will be accounts receivable. The level of credit sales will also be determined by the custom that exists in that business. If the business needs the credit sales to push the product, it becomes inevitable that the firm has to adopt credit policy on a larger scale. This naturally give place for the emergence of accounts receivable. The volume of this account changes with the change in credit sales. If the credit sales increases year after year, the accounts receivable also changes more or less in the same proportion, supposing the credit sales increases by 10% Accounts Receivable also increases. Thus, one factor governs the volume of accounts receivable is "credit sales volume."

2. Credit Policies: Another important factor which determines the volume of "Accounts Receivable" is credit policy of the firm. By "Credit policy" we mean then policy adopted to extend credit sales which include (1) The time period allowed to collect the debts, (2) The types of discounts allowed, (3) The assessment of customer's credit-worthiness, (4) Collection policy etc. The credit policy varies also with the changes in the economy. If the economy is experiencing a tight situation, then the businessmen will have to adopt a adopt a liberal credit sales policy. This means, the increase in accounts receivable. Again, the customers may take longer time to make payments. On the other hand, if the economy is experiencing a boom period, trade credit will be on a low key and the volume of accounts receivable will also be less and the collection period will also be reduced.

The credit policy may be liberal or rigid one. If the firm adopts a rigid policy, the volume of accounts receivable will be less and the firm plays safe. There will be better debtor management. On the other hand, if the firm adopts a liberal credit policy, the volume of Accounts Receivable increases and increases the risk of the firm. Even the sound customers would like to avail the facility of credit sales. This reduces the cash inflow and increases the volume of debtors. Another defect in this policy, is that the quality of the account receivables suffer. There will be more defaults and bad debts. Thus, the volume of accounts receivable depends upon the conditions in the economy and the nature of credit policy adopted by the firms.

3. Business Terms: The volume of accounts receivable also depends on the terms and conditions relating to credit sales. These conditions include *(i)* The time period allowed to pay back the purchase price *(ii)* The types of discounts allowed.

(i) Time period: The time period allowed to clear the trade debt by the customers determine the volume of accounts receivable. Longer the period allowed, higher will be the credit sales and rise in size of the accounts receivable. The time period will be determined by taking into account the business conditions and firm's internal financial situation relating to working capital. It the firm's micro and macro environment provide for longer credit period, it can do so. Otherwise it can adopt short period policy. However the payment should be made exactly on or before the due date which may be 15, 30 or 60 days. The term "Net date" is used to express the exact credit period allowed.

(ii) Discount: There are three categories of discount allowed by the traders to customers, *viz.*, *(i)* Trade discount, *(ii)* Cash discount, and *(iii)* Quantity discount.

Trade discount is the normal and usual discount allowed, on the invoice price. This also influences the sales. Supposing higher trade discount is allowed on the invoice price the purchasers are motivated and sales volume increases and results in the increase of accounts receivable. However, the firm cannot lose on two counts *(i)* extending credit and *(ii)* allowing a higher trade discount. It has to strike a balance between these two and have a sound discount policy to pushup figure.

Cash discount is another type allowed to customers for prompt payment. Supposing the credit period allowed is 60 days and if the customer makes the payment early, he may be given an extra discount of 2% or 3% on the money due. This is also a motivation to the customer and reduces the size of the accounts receivable. The sound customers can avail this opportunity and get extra benefit. On the other hand, this discount pushes sales figure and prompts the customers to make early payment which increases the liquidity of the firm.

Quantity discount is one which is allowed in term of physical units. This also pushes the sales and increases the size of accounts receivable. If the seller finds that the stock he holds is in excess and if he anticipates a fall in price of the product, he will think of allowing quantity discount to push sales, reduce the excess stock and avoid the expected loss. The stock then can be converted into accounts receivable. This again increases the size of accounts receivable. Thus, besides giving trade discount, the trader may give extra discount or extra units of goods if more quantity is purchased.

4. Competition: Another factor which governs the size of the account receivable is competition. If a firm is having a competitive environment, it will have liberal credit policy and this increases the size to the accounts receivable. They compete with the object of pushing sales and easy credit terms become inevitable. When the firms severely compete, the credit policy will be so liberal that all and sundry purchase the products on credit. This results in some amount of bad debts although it increases the volume of sales. Even during the competitive situation, the firms, though they adopt liberal credit policy, have to take care of the quality of debt.

5. Location: Location of business unit also contributes for the size of accounts receivable. If the business firms are located in far off places, they are forced to adopt a credit policy which attracts the customer. If the product is exclusive, location will not be a problem and customer development will be good. In such a case the firm can adopt a stringent credit policy which reduces the accounts receivable. On the other hand, if the products is competitive in character, the business unit dealing in such product and operating from a distant place from the market area, has to adopt a liberal credit policy which results in increase in accounts receivable.

New Products

When the new products are introduced, the firm has to extend the liberal credit policy till such time the product catches the market and even afterwards the policy has to continue to maintain customers. This naturally increases the size of accounts receivables.

What should be the size of Receivables?

Many use the term "Optimum" when they think of production of goods or marketing of goods or maintaining the size of an account. But this term is bit ambiguous as that level cannot be reached any time. However, the nearest point may be reached. The same thing holds good in case of "Accounts Receivable." As discussed earlier, *(i)* volume of credit sales, and *(ii)* the average period between sales and collection are the two factors mainly determine the size of the accounts receivable. In order to reach a maintainable size (optimum), the firm has to strike a balance between "liquidity" and "profitability." Liquidity here refers to the quality of the accounts receivable. This means, the firm has to maintain debtors which are readily convertible into cash to meet the business needs. As far as possible the credit should be extended to those who have good credit standing. Then the accounts receivable will be qualitative one and results in good funds inflow. 'Profitability' refers of the earning more profit by increasing the credit sales volume. But when the credit sales increase, more profit by increasing the credit sales volume. But when the credit sales increase, more risk is involve. This results in more locking of funds, increase in occurrence of bad debts and increased cost of collection. Hence sales volume has to be increased minimising these limitations.

The firm cannot have a rigid credit sales policy either. If it adopts such a policy, the quality of debt may become good or there may be good inflow of funds but sales figure fall resulting in decline n profits. Considering every aspect, the firm has to maintain a balance between these two—liquidity and profitability to hold a "manageable size" of the accounts receivable. The credit policy should not be too loose or too tight. It should be moderate to maintain a qualitative and good size of accounts receivable.

How to determine the age of the receivables or the duration of collection period?

The "age" here refers to the time involved in collecting the purchase price from the trade debtors. This age actually contributes to the sound management of working capital. If the collection period is long then the inflow of fund will be slow and may not synchronise with the payments to be made to the trade creditors. Hence it is always advisable to determine the collection period and the average age of the debtor. Shorter the collection period and age, faster will be the fund inflow. This helps in minimising expenses or trade creditors or any other payments to be made.

The age of the accounts receivable can be computed by taking the following variables:

(i) Credit sales for a given period. *(ii)* Opening debtors.
(iii) Closing debtors.

The following steps are involved in the calculation of the age of the accounts receivable :

Step-1: Ascertain the average debtors by adding opening and closing debtors and dividing it by 2.

$$\text{i.e., } \frac{\text{Opening Drs} + \text{Closing Drs}}{2} = \text{Average Debtors}$$

Step-2: Calculate the debtors turnover by dividing credit sales by average Drs.

$$= \frac{\text{Credit Sales}}{\text{Average Drs}}$$

Step-3: Find out the age by dividing the period from the debtors turnover.

$$= \frac{\text{Months in the period}}{\text{Debtors Turnover}}$$

Illustration :

	Rs.
Opening Accounts Receivable	40,000
Closing Accounts Receivable	30,000
Credit Sales for 12 months	3,50,000

$$\textit{(i)} \text{ Average Drs} = \frac{40000 + 30000}{2} = 35{,}000$$

$$\textit{(ii)} \text{ Drs T.O.} = \frac{3{,}50{,}000}{35{,}000} = 10$$

$$\textit{(iii)} \text{ Age of A.R.} = \frac{12 \text{ months}}{10} = 1.2 \text{ months}$$

The age can also be computed by the following alternative methods.

Alternative - 1

Step - 1: Multiply the period by the average Drs.

Step - 2: Divide it by Sales.

By adopting the data taken in the illustration, we can compute it in the following manner.

$$= \frac{35{,}000 \times 12}{3{,}50{,}000} = 1.2 \text{ months}$$

Alternative - 2

According to this procedure divide average Debtors by the average monthly Sales.

$$= \frac{35{,}000}{3{,}50{,}000/12} = 1.2 \text{ months}$$

Comment

> 1.2 months or 36 days is the age of the accounts receivable. This means the accounts receivable turn once in 36 days which is considered to be a good managements of accounts receivable. Any period between 15 days to 45 days adjudged as a sound period of collection and working capital management will not suffer. But while calculating the age, one should exercise greater care. Otherwise the result will be malicious. when the sales are widely fluctuating one should be cautious in calculating the age.

Ageing Schedule

This is a statement prepared to determine the quality of the individual debtors. A comparative statement of individual for two periods will be prepared. The time period covered may be two years or two periods in the same year. Normally the period is split having a frequency of 30 days, *i.e.*, 0-30 days, 31 to 60 days, 61-90 days, 91 to 120 days etc., and what is the percentage of debt due during this periods will be known and the percentage will be compared with the figures of the corresponding period during previous year. Observe the following schedule.

Aging Schedule: (For one year).

Size of the A.R.	*Period ending 30-9-91 (I half year)*		*Period ending 31-3-92 (II half year)*	
Days	*Amount Due Rs.*	*Per cent*	*Amount Rs.*	*Per cent*
0-60	75,000	12.25	2,25,000	25
61-120	2,25,000	37.75	4,50,000	50
121-180	3,00,000	50.00	2,25,000	25
Total	6,00,000	100=00	9,00,000	100

As seen from the above table amount due from Drs. is Rs. 6,00,000 in the second half of the year and of Rs. 9,00,000 in the first half of the year, in the first class (0-60), collection is good as the outstanding per cent is only 12.25 of the total due for the first half of the year. But for the corresponding period in the second half of the year, the position is not good. It shows a percentage of 25. In the second class (61-120 days), the percentage of collection is better in the first half of the year compared to second half of the year. It is 37.75 and 50. But the third period, (121-180 days), of second half of the year) is having good collection compared to the corresponding period in the first half of the year.

Maintenance Costs

Several types of costs are incurred to maintain the accounts receivable. The cost also includes the amount locked in account receivables. Following are the types identified to manage the accounts receivable.

1. ***Locked Funds:*** When a firm adopts a credit policy, it is inevitable that a portion of working capital will be locked up in the form of debtors. This is an ever rolling account and the firm has to provide for it. This fund represents "Capital Cost." When the customer avails the credit facility, from the time of sale to the time of receiving the purchase price, the money is blocked and the firm cannot wait for that money to carry out other transactions. There will be hundreds of such customers and hence huge money will be locked up. Then the firm will have to make alternative arrangement to meet the gap. This can either be borrowed or secured from internal source. In both the cases the firm incurs a cost. It is retained earnings, the opportunity cost (fund that the firm could earn in next best use) will be incurred and if it is borrowings the interest has to be paid. Therefore, the firm will have to provide for additional fund will have to provide for additional fund.

2. ***Managing Costs:*** Certain expenditure is made to maintain the books of accounts of the debtors. The expenses will be in the form of salary to the accounting staff, stationery, expenses involved in assessing the credit standing of prospective buyers, etc. These expenses are called "managing costs" of accounts receivable.

3. ***Collection Costs:*** There will be irregular customers, who do not keep on their schedule of payments. In every firm we find a certain percentage of this type of debtors. In such cases extra efforts has to be put to collect the money. This involves certain expenses in the form of process fee, court fee, travel expenses, salary to collection staff etc.

4. ***Bad Debts:*** The firm should also provide for bad debts. Certain debts cannot be recovered in spite of the sincere collection efforts. The firm will not have any other alternative except to write it off. This is another type of cost that the firm has to incur.

What is the sound management policy for Accounts Receivable?

As discussed so far, two important factors govern the management of accounts receivables. They are (1) Sales volume, (2) The average period between sales and collection. Credit policy determines the average collection period. (3) Credit control.

A brief analysis is made regarding Credit Policy in this chapter in the beginning. The same is further analysed here. The credit policy of a firm is formulated taking into account (1) the Credit rating, (2) Credit period, (3) Collection policy, (4) Discounts allowed.

1. Credit Rating

This refers to the measurement of the creditworthiness of the customer. The creditworthiness is measured by the standards fixed by the firm, while fixing the credit standard, the firm should take into consideration costs, the temperament of the customer and the profit that can be earned by increasing the sales through liberal credit policy. The incremental cost of credit should equate (or it can be less) with the incremental profits on the increased sales. However, the incremental cost should not exceed. (These costs are already discussed in previous paragraph). The credit rating is done by the established practices by adapting five "C"s. They are *(i)* Character, *(ii)* Capacity, *(iii)* Capital, *(iv)* Collateral, *(v)* Conditions.

"Character" refers to the temperament of the customer. It is to be judged whether the customer is honest and is prompt in paying the dues that he had undertaken to pay. Credit evaluation has to be made taking into account this factor.

"Capacity" refers to the ability of the customer to pay back the purchase price. This can be measured by conducting a detailed investigation of his dealings, his past actions, his possessions, his business methods etc. This investigation reveals whether the customer of managing his business efficiently.

"Capital" refers to the financial soundness of the customers. This can be assessed by studying the financial statements of the firm. The statements indicate the financial soundness of the firm.

"Collateral" is a term used to express the additional ability of the customers. This measures the securities held by the customers which can be offered for the credit he avails.

"Condition" refers to the economic conditions which influence the activities of the firm. If the conditions are unfavourable the situation will not be good for extending credit to such firms.

Thus, these five "C"s determine the credit rating of the customers.

There are special agencies to conduct credit rating of the customers. In England, the organisations like *(i)* London Association for the Protection of Trade, *(ii)* National Federation of Credit Traders, *(iii)* National Check Trader's Federation provide credit information of wholesalers, retailers and other business houses. There are service organisations and commercial credit houses, which supply credit information of the business houses.

Dun and Brad Street, a famous firm in the USA collects information for certain number of industries and publishes a reference book periodically. In this book, the financial strength of the firms are projected and credit appraisal of each firm is made based on the study of each firm, credit ratings is made. Before making the credit rating, the information about the customers' history, type of business carried, location of the business, the particulars about the payments, how he uses the credit facilities, his promptness in payment etc., will be analysed and the conclusions are drawn. The same rating is published in the book.

In India, two credit rating agencies are operating at present. They being *(i)* Credit Rating and Information Services of India Limited (CRISIL) *(ii)* Investment Information and Credit Rating Agency (ICRA). These two agencies have just made a beginning and are supplying credit information to needy firms. Credit rating is also made of the large firms who want it to be made when they are issuing the shares, to the public.

Based on this information, the firms cán make credit decisions relating to different class of customers.

2. Credit Period

Credit period, as far as possible, should be shorter one. Short period credit facilitates the firm to have regular funds inflow which can be synchronised with payments. Credit period is decided, taking into account, the credit standing of the specific customers and the firm's financial needs.

3. Collection Policy

It is always better to have short collection period. However, the collection period depends upon the terms of credit and types of customs. Some customers would like to have long credit period, pay on the due dates and enjoy the credit. But some others would like to have short period and enjoy cash discount facility. There are some others also who pay only after receiving several reminders. Depending upon the types of customers a collection policy has to be adopted which smoothen the management of account receivable. Keeping this in mind, the firm will have to prepare regularly the debtors' schedule and classify the debtors. Overdue accounts should be followed up. Timely action has to be taken to collect the debts. If prompt action is not taken, the debts become bad. Legal action should be the last resort to collect the debt. As far as possible the debtors have to be wooed and debts should be collected. Otherwise, there will the chance of loosing the customers.

4. Discounts

We have already discussed in this chapter. The only discount which influences greatly the customers is cash discount. This induces the customers to make prompt payment. But several surveys conducted have shown that discounts are not worth giving. The suppliers have experienced much difficulty in checking discount allowances, their calculations, rectifying the wrong deductions etc. It is a time consuming proposition and a cumbersome process also. Instead encouraging debtors to make prompt payment by giving cash discount or any other type of discount, it is better to enforce the customers to make payments on due dates. Therefore while entering into the contract of sale, it is better to stipulate correct credit terms including the interest to be charged on the outstanding amount.

Credit Control

Credit control can be made by adopting certain tools. They are as follows:

(i) In most of the companies, invoicing of the goods takes place after the delivery of the goods to the customers. Much time is also taken to prepare invoices. In order to control the debt collection, the invoice has to be prepared quickly and should be sent with the goods. This minimises debt collection time.

(ii) Mechanised sales ledger accounting can be introduced to have regular check on the debtors. This system of accounting gives the break-up of each invoice and the age of each outstanding account. This facilitates the quick collection of debt. Majority of the business enterprises today are employing the computers for the preparation of their accounts. This has actually reduced the collection period.

(iii) Another method that is normally adopted to minimise the bad debts is the personal approach in collection. If the firm maintains good personal relationship with the customers, the debt collection becomes easy.

Factoring Services

The latest collection control method that has emerged is 'Factoring'. According to this arrangement, customer's credit is sold to a factoring firm. The responsibility of collecting the debt will be shifted to the factors. Here the 'factor' purchases the debt by charging some money for his services. The factor charges depend upon the degree of risk involved in debt collection.

What is Factoring?

'Factoring' is a debt-collection service where the factor purchases book-debts of the client at a discount either with or without resource'. He undertakes responsibility of debt collection and maintenance of the client's sales ledger in return for a service fee. Nearly 80% of the assigned debts are advanced to the client. Factors mainly help the organisations which are going to use the finance and service to smoothly operate and expand their activities. Whenever there is credit squeeze in the economy, the firms have to mainly depend upon their sales and collection for working capital requirements and in such a situation, factors render good service.

Functions

Factoring are of different types. They are of more a service agency rather than financing. Different types of factoring services are rendered by different types of factors. Two important functions are discharged by the factors. They are: *(i)* Providing timely finance and *(ii)* Risk-bearing. These are the pillars of factoring.

(i) Factoring is just like discounting a bill with the banker. But here there is no instrument of credit backing the money given by the factor. He actually purchases the sales ledger accounts and provides finance to the organisation. It is just shifting the collection responsibility to a specialised firm called factors. Factors undertake the collection responsibility and charge some money to the firms which vary from 2 to 4%. This charge depends upon the degree of work involved in debt collection. Thus one important function discharged by factoring agency is that it provides timely finance from the debt source. 18-22% finance is made available for financing debt. It should be noted here that it is not actually borrowing from the factors and only obtaining funds from accounts receivable at a discounted rate. It will not be exhibited on the face of the balance sheet. Hence, borrowing power of the firm is not affected.

(ii) Another important function that factor discharges is that he undertakes the risk in collecting the client's debts. Factors have to collect the dues as per the credit terms already stipulated and they cannot adopt their own collection norms. They have to skilfully

collect the credit without affecting the relationship that exists between the firm and their debtors. thus factors take credit risk.

Kinds

There are two kinds of factoring, *viz., (i)* Recourse, and *(ii)* Nonrecourse factoring.

Recourse factoring provides all other functions of a factor except protection against bad debts. The factor does not assume the credit risk against bad debts. Some factors advance 100% against book debts and some advance 80% and pay the balance after the debt is collected. In this case, the creditor has the final risk of bearing bad debt. Factors have recourse to their clients for bad debts. 'Non-notification factoring', as it is called in the U.S.A., does not notify the sale of book debts to the factor, this kind of factoring (discounting the invoice) is common in the United Kingdom. At present, both the operating factor agencies, SBI Factors and Canbank Factors (authorised by the Reserve Bank of India) have undertaken only resource factoring services in India for west and south zones respectively. At present RBI has granted permission for inland factoring. Punjab National Bank (PNB) for north and Allahabad Bank for east zone have sought permission from RBI to start factoring service in these zones.

Non-recourse factoring on the other hand accept full responsibility of credit risk. It is just the opposite of recourse factoring. The factor, besides discounting the invoice, assumes the responsibility of bad debts and does not have recourse to his client. However, factoring with non-recourse is not practiced in India.

Factoring provides good management service. It facilitates the simplification of accounting procedure which reduces the expenses on accounting and credit control. This service also relieves the burden of debt collection and makes the funds flow smooth.

But the cost of factoring may not be advantageous for firms which have small-scale sales ledger accounts. Only big firms can enjoy this service as the cost will be spread to large number of accounts. The service charges to up to 2 to 4% on the amount involved in factoring. The service charges depend upon the quality of debt, *i.e.*, credit standing of the customer, credit terms and the nature of business of the customer.

INVENTORY MANAGEMENT

Inventory :

It refers to stocks, raw materials, components, spares or work-in-progress maintained in an organisation to have continuous production and sales.

Inventory management is the third component of working capital management. It involves the processes of providing continuous flow of raw materials to production department. More than 60% of the working capital will normally be invested in the inventory. Hence, management of inventory has gained considerable recognition in the subject of financial management. An efficient system of inventory management directly contributes to the growth of profitability of the business concern. Due to inflation and the concept of time value of money, inventory management has gained important recognition in the day-to-day management of business units.

The scientific process of implementing inventory management provides inventory at right time, from right source and at right prices. It also involves the steps that are to be undertaken with regard to storage and supervision of these materials. The main objective of inventory management is to reduce the order placing and receiving and inventory carrying cost. This not only ensures continuous flow of raw materials but also reduces the cost of production.

The excess and inadequate supply of raw materials directly disturbs the normal functioning of the business units. Excess inventory leads to idle investment high inventory carrying cost and wastage. Inadequate inventory directly affect the production process. Therefore, scientific principles are to be adopted to manage the inventory. To avoid all these problems, in Japan, JIT concept has been introduced (Just In Time). It refers to the supply of raw materials to the production department directly by the suppliers. The agreement will normally be made with the supplier of materials on such terms, so that the supply of raw materials must be made without any interruption to the normal productive activities. The success of this arrangement mainly depends on the sound infrastructure facilities *viz.*, communication system, transportation system and availability of raw materials. In India only few industries have introduced 'JIT' concept to procure raw materials directly. Example: Kirloskar and Maruti Udyog Private Limited has introduced this technique in procuring certain components directly from the suppliers.

Objects of Inventory Management

The important objectives of inventory management are:-

(*a*) To provide continuous supply of raw materials to carry uninterrupted production.

(*b*) · To reduce the wastage and to avoid loss of pilferage, breakage and deterioration.

(c) To exploit the opportunities available to reduce the cost of purchase.
(d) To introduce scientific inventory management techniques.
(e) To provide right materials at right time, at right sources and at right prices.
(f) To meet the demand for goods by ultimate consumers on time.
(g) To avoid excess and inadequate storing of materials.
(g) To protect quality of raw materials.
(i) To reduce the order placing and receiving costs to the minimum.
(j) To ensure effective utilisation of the floor space.

Costs Associated with Holding Inventory

The continuous flow of inventory is most essential to carry out smooth productive activities. The success and timely supply of finished goods mainly depends on uninterrupted supply of raw materials to the production department. To ensure to this flow of raw materials, the company has to maintain adequate quantity of inventory. Storing of these components involves many types of costs and uncertainties. As the value of the materials, increases than the value of a rupee, it should be maintained judiciously. Some of the costs associated in managing the inventories are discussed below:

1. *Financial Cost:* It is also known as capital cost. The finance required to purchase the inventory and the cost the company bears for mobilizing, it is known as financial cost. Therefore adequate supply of finance at cheapest cost must be made available to maintain the inventory.

2. *Cost of Storage:* Inventory are to be stored properly by protecting the quality. The space required for storing the inventory must be adequately provided. This cost consists of the rent payable for storing the materials and maintenance of inventory cost (Insurance).

3. *Price Fluctuation:* Inventories are exposed to vide fluctuation in the prices. Many at time, the prices of materials may be reduced. If the price paid for procuring the materials are higher than the price that is prevailing, it is a loss to the business firm.

4. *Risk of Obsolescence:* Due to the increased research and innovative and creative minds of technologists, new materials and products will enter into the market. Under such circumstances, the product manufactured today becomes obsolete.

5. *Deterioration in Quality:* In a practical situation, most of the materials stored may not be issued by the production department for various reasons. In the process, such material looses its quality or deteriorates itself from original value.

6. *Theft, Damage and Accident:* The materials are stored in the warehouses. If it is not properly taken care of, it is exposed to different types of uncertainty *viz.*, theft, damage and fire accident etc. All these are losses or increases the cost production.

7. *Order Placing Cost:* Order placing cost is a permanent cost which is incurred by the business firm to place the order for materials, the salary of clerk, manager and establishment charges will also be considered into managing the inventory.

8. *Inventory Carrying Cost:* It includes the expenses of maintenance of stores, bins and the salary to the staff who are in charge of warehouses or storage. Hence these costs are to be reduced to increase the profitability of the firm.

9. *Cost of Shortage of Stock:* Many a times, business firms may not be able to arrange the adequate supply of materials regularly for various reasons. As a result, production work may be stopped. Therefore, sufficient care should be taken not to have this cost in running the business.

Tools of Inventory Management

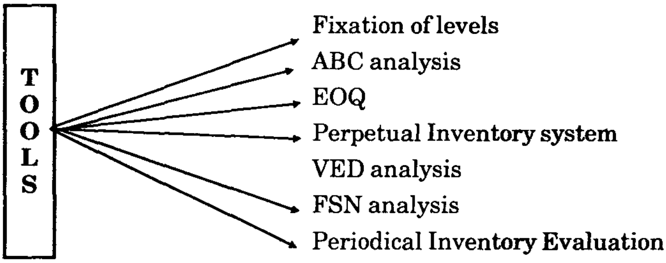


Fig. 6.9 Tool of Inventory Management

1. *Fixation of Levels:* It is a tool through which the inventories are maintained by fixing different levels namely: Maximum level, Re-order level, Minimum level and Danger level. Fixation of levels are made by considering different factors *viz.*, nature of raw materials, cost, availability lead time, storage space and cost etc. The different levels set by considering the above factors will act as an indicator for managing the inventory.

(a) Maximum level: It is a level set for materials beyond which it should not be stored. Maximum level is set by considering the various factors namely availability of raw materials, lead time, storage space etc. Materials stored beyond maximum level creates several financial and managerial problems to the firm. The following formula is used to fix maximum level.

Maximum stock level = Re-order level = Re-ordering quality - (Minimum Consumption x Minimum Re-ordering Period)

(b) Re-order Level: Re-order level is that level fixed for the materials to indicate the urgency of procuring them from the market. This level is fixed by considering the rate of consumption of materials, lead time and the availability of raw material. Once the materials reaches this level, stores controller places his request to purchase the materials. So that, he can maintain storage of such items to maximum level.

Re-order Level = Maximum Consumption × Maximum Re-order period

(c) Minimum Level: It is also known as safety stock, below which the storing of materials leads to severe consequences. In other words, it is a level at which stores controller takes immediate action in procuring the materials. Any negligence on the part of the in charge of stores may lead to stoppage of production. This level is set by considering lead time, rate of consumption and the nature of material.

Minimum Stock Level = Re-ordering level - (Normal Consumption × Normal Re-order Period)

(d) Danger Level: It is the level beyond which storage of materials should not fall. It also indicates the necessity to arrange for quick purchase of materials. Otherwise, a firm has to stop the production of major plants. The stores in charge may procure the materials even at the cost of extra expenses and strain.

Danger Level = Average Consumption × Maximum Re-order Period for emergency purchases.

2. *ABC Analysis:* Under this method, the materials are managed by giving importance to its value. Classifications are being made by grading the materials as A, B and C. Grade A materials are costly high in value but less in number and are supervised and controlled closely. Grade C materials are cheap in value but more in quantity and least attention is given in monitoring these times. Grade B materials are moderate in value and moderate number of such items are maintained with moderate control. The main purpose of adopting this technique as a inventory control is to maintain scientific investments.

3. Economic Order Quantity: Economic order quantity is that quantity of materials to be ordered where it will have least or minimum order placing and carrying cost. It is also called as the size of the materials to be purchased most economically. The ordering cost or order placing costs consists of salary of the staff who are in charge of ordering goods, transportation costs, inspection costs, cost of stationery, typing, postage, telephone charges etc.

Carrying costs refers to the cost of capital, cost of storage, insurance cost and cost of spoilage etc. both these costs should be maintained at minimum to order for a specific quantity of materials this can be calculated by using a formula where A = Annual Consumption in rupee; S = Cost of placing an order; I = Inventory carrying cost of one unit.

$$\text{Economic Order Quality} = \sqrt{\frac{2AS}{1}}$$

4. Perpetual Inventory System: It is also referred as continuous stock checking. Under this system, registers are maintained for materials, entries are made as and when the materials are received and issued. The physical verification of materials are conducted throughout the year. Hence it is identified as a costly technique of inventory control. Though it is a costly technique, the benefits enjoyed by the management are many. Statement of materials, follow up action, monitoring etc., can be smoothly carried out. As a result of this benefit, many trading as well as manufacturing concerns are adopting this technique for inventory management.

5. VED Analysis: It is most suitable method for automobile industries specially to maintain spare parts. All the parts are classified into vital, essential and desirable components. Vital parts for the manufacturing of a product will be closely monitored. Inadequate supply of these parts may substantially damage the productive activities. E type of materials is no doubt that they are essential, but its level of stocks are moderately low. Desirable (D) components may or may not be maintained. Non-availability of D type of spares do not damage the normal functioning of the industry.

6. FSN Analysis: Under this method, materials are grouped according to the movements. Fast moving items, slow moving and non-moving items. Fast moving items are stored in large quantity and a close watch on the movement of such items are kept. Slow moving items are not frequently needed by the production department, accordingly moderate quantity with moderate supervision will be maintained. Non-moving items are rarely required by the production departments. Hence a smaller number of materials are kept in stores and less importance is given in inventory management.

7. Periodical Inventory Valuation: Under this system inventory valuation with checking will be carried out at different intervals, generally twice or thrice in a year. During the period of stock checking, normal functioning of the organisation will be closed for one or two days and complete stock verification and valuation will be done accordingly. Most of the trading concerns adopting this technique for their inventory management.

POINTS TO REMEMBER

Working Capital: It is a short-term capital required to a business unit to maintain day-to-day activities.

Permanent Working Capital: It is a capital required by the business unit to meet short-term financial requirement throughout its existence.

Temporary Working Capital: It is a capital required to meet temporary financial requirement for short period.

Gross Working Capital: It refers to the total sum of Current Assets.

Net Working Capital: It is the surplus of current assets over current liabilities.

Negative Working Capital: It refers to the surpluses of current liabilities over current assets.

Reserve Working Capital: If refers to the working capital required to meet some uncertain contingencies.

Dangers of Excess Working Capital:

(1) It results in unnecessary accumulation of inventories.
(2) It is an indication of defective credit policy.
(3) It leads to inefficiency.
(4) It directly affects the dividend policy.

Dangers of Inadequate Working Capital:

(1) It stagnates the growth.
(2) It becomes difficult to implement operating plans.
(3) It leads to operational inefficiency.
(4) It leads to failure of exploitation of available opportunities.
(5) It affects the reputation of the company.

Determinants of Working Capital:

(1) Nature of the industry.
(2) Size of the business.
(3) Manufacturing cycle.
(4) Production policy.
(5) Volume of sales.
(6) Terms of purchase and sales.
(7) Business cycle.
(8) Growth and expansion.
(9) Availability of raw materials.
(10) Operating efficiency.

(11) Credit policies of RBI.
(12) Profit margin.
(13) Profit appropriation.
(14) Price level changes.
(15) Capital structure of the company.

Long-term financing:

(1) Loans from financial institutions.
(2) Floating of debentures.
(3) Accepting public deposits.
(4) Issue of shares.
(5) Raising funds by internal financing.

Short-term financing

(1) Cash credit.
(2) Over draft.
(3) CPs.
(4) Short-term loan.
(5) Bill-discounting.
(6) Factoring.

Approaches for Determining the Financial Mix:

(1) Hedging Approach.
(2) Conservative Approach.
(3) Aggressive Approach.

Working Capital Management:

It involves

(a) Determining the size of working capital.
(b) Arranging the sources of working capital.

Component of Working Capital Management:

(a) Cash Management.
(b) Accounts receivable Management.
(c) Inventory Management.

Objectives of Cash Management:

(a) To make cash payments.
(b) To maintain minimum cash reserve.

Motives of Holding Cash:

(a) Transaction motive.
(b) Precautionary motive.
(c) Speculative motive.
(d) Compensatory motive.

Strategies for Cash Management:

(a) Cash planning
(b) Managing the cash inflows
(c) Optimum cash level
(d) Investing idle cash

Determinants of Accounts Receivable:

(1) Credit Sales Volume.
(2) Credit Policies.
(3) Business Terms.

(4) Competition.
(5) Location.
(6) New Products.

Base for Formulating a Credit Policy:

(a) Character.
(b) Capacity.
(c) Capital.
(d) Collateral.
(e) Conditions.
(f) Credit period.
(g) Collection Policy.
(h) Discount.
(i) Credit Control.

Factoring: Maintenance of Credit Sales Ledger of a Client by a Factor (Bank)

Types:

(a) Factoring with Recourse.
(b) Factoring with Non-Recourse.

INVENTORY MANAGEMENT

Objects of Inventory Management:

1. Assures continuous inventory.
2. Reduces the wastage of inventory.
3. Helps in exploiting the opportunities prevailing.
4. Helps in introducing scientific inventory management.
5. Provides right materials, at right price, at right time.
6. It protects the quality of raw materials.
7. Helps in reducing order placing and carrying cost.
8. Helps in optimal usage of floor space.

Tool of Inventory Management:

1. Fixation of Levels.
2. ABC Analysis.
3. EQQ.
4. Perpetual Inventory System.
5. VED Analysis.
6. FSN Analysis.
7. Periodical Inventory System.

Costs Associated with Inventory Management:

1. Financial Cost.
2. Cost of Storage.
3. Price Fluctuation.
4. Risk of Obsolescence.
5. Deterioration in quality.
6. Theft, Damage and Accident.
7. Order Placing Cost.
8. Inventory Carrying Cost.
9. Cost of Shortage of Stock.

STUDY QUESTIONS

Part - A

(2 Marks questions)

1. What do you mean by working capital?
2. Distinguish between permanent working capital and temporary working capital?
3. What do you mean by "Lock Box System"?
4. Mention the important objects of cash management.
5. Give the meaning of "Receivable Management".
6. What do you mean by Average Collection Period?
7. What do you mean by operating cycle?
8. What is the basic objective of preparing aging schedule?
9. What do you mean by float?
10. What is an optimum credit policy?
11. What is meant by inventory management?
12. Mention the motives of holding cash. ***(B.U. Apr. '99)***

Part - B

(8 Marks questions)

1. What are the objectives of cash management?
2. What are the dangers of inadequacy of working capital?
3. What are the dangers of excessive working capital?
4. A company's collection pattern is as follows:
   (a) 40% of the sales in the same month, *i.e.*, month of credit sales.
   (b) 10% of the sales in the second month.
   (c) 30% of the sales in the third month.
   (d) 20% of the sales in the fourth month.
   The sales of the month for the first three quarters of the year are:

Month	*Quarter I*	*Quarter II*	*Quarter III*
First	20,000	45,000	25,000
Second	15,000	20,000	25,000
Third	55,000	25,000	40,000
Total	90,000	90,000	90,000
Working Days	90	90	90

   Calculate the average of receivables.
5. What are the objectives of credit policy?
6. What are the objects of inventory management.

Part - C

(15 Marks questions)

1. What is meant by working capital management? What are the factors determining working capital? ***(B.U. Apr. '99)***
2. What benefits and costs are associated with the extension of credit? How should they be combined to obtain an appropriate credit policy?

3. Why do you consider the management of working capital as separate area in financial management?
4. Critically examine the role of cash management in achieving the objective of financial management.
5. What are the different sources of working capital? What are the factors determining working capital?
6. A company expects to have Rs. 37,500 cash in hand on 1st April, 1978 and requires you to prepare an estimate of cash position during the three months April to June, The following information is supplied to you.

	Sales *Rs*	*Purchase* *Rs.*	*Wages* *Rs*	*Factory Expenses* *Rs.*	*Office Expenses* *Rs.*	*Selling Expenses* *Rs*
February	75,000	45,000	9,000	7,500	6,000	5,500
March	84,000	48,000	9,750	8,250	6,000	4,500
April	90,000	52,000	10,500	9,000	6,000	5,250
May	1,20,000	60,000	13,500	11,250	6,000	6,500
June	1,35,000	60,000	14,250	14,000	7,000	7,000

(i) Period of credit allowed by suppliers — 2 months.

(ii) 20% of sales is for cash and period of credit allowed to customers for credit sales in one month.

(iii) Delay in payment of all expenses — 1 month.

(iv) Income tax of Rs. 57,500 is due to be paid on June 15, 1978.

(v) The company is to pay dividends to shareholders and bonus to workers of Rs. 15,000 and Rs. 22,500 respectively in the month of April.

(vi) Plant has been ordered to be received and paid in May. It will cost Rs. 1,20,000.

7. Nagaraj of Mysore has furnished the following information. Based on this, prepare a cash budget for three months June, July and August 1991.

Month	*Sales* *Rs.*	*Material Purchased* *Rs.*	*Wages Overhead* *Rs.*	*Production* *Rs.*	*Office and Selling exp.* *Rs.*
June-1991	72,000	25,000	10,000	6,000	5,500
July-1991	97,000	31,000	12,100	6,300	6,700
Aug.-1991	86,000	25,500	10,600	6,000	7,500

Assumptions:

(a) Cash balance in hand on 1-6-91 — Rs. 72,500

(b) 50% of sales are cash sales.

(c) A fixed asset has to be purchased for Rs. 8,000 in July 1991.

(d) Debtors are allowed one month's credit.

(e) Creditors for materials grant one month's credit.

(f) Sales commission 3% sales is paid to the salesman each month.

8. A company sells a product at Rs. 30 per unit with a variable cost of Rs. 20 per unit. The fixed costs amount to Rs. 6,25,000 per annum and the total annual sales to Rs. 75 lakhs. It is estimated that if the present credit facility of one month were doubled, sales could be increased by Rs. 6,00,000 per annum. The company expects a return on investment of at least 20% prior to taxation. Will it be desirable to adopt the new policy?
9. Summarised below are the income and expenditure forecasts for the months March to August 1964:

	Sales (all credit)	*Purchases (all credit)*	*Wages*	*Outstanding Expenses*		
				Manufacturing	*Office*	*Selling*
	Rs.	*Rs.*	*Rs.*	*Rs.*	*Rs.*	*Rs.*
March	60,000	36,000	9,000	4,000	4,000	4,000
April	62,000	38,000	8,000	3,000	1,500	5,000
May	64,000	33,000	10,000	4,500	2,500	4,500
June	58,000	35,000	8,500	3,500	2,000	3,500
July	56,000	39,000	9,500	4,000	1,000	4,500
August	60,000	34,000	8,000	3,000	1,500	4,500

You are given the following further information:

(a) Plant costing Rs. 16,000 is due for delivery in July, payable 10% on delivery and the balance after three months.

(b) Advance tax of Rs. 8,000 each is payable in March and June.

(c) Period of credit allowed *(i)* by suppliers 2 months, *(ii)* to customers 1 month.

(d) Lag in payment of manufacturing expenses-1/2 month.

(e) Lag in payment of all other expenses — 1 month.

You are required to prepare a cash budget for the three months starting on 1st May, 1964, when there was cash balance of Rs. 8,000 (Closing balance: May Rs. 15,750, June Rs. 12,750 and July Rs. 18,400).

10. Explain the different tools of inventory management.

7

RATIO ANALYSIS

(PART — I)

Ratio Analysis — Meaning — Definition — Kinds — Balance Sheet Ratios. 1. Current Ratio — 2. Liquid Ratio — 3. Proprietary Ratio

RATIO ANALYSIS

Meaning

'Ratio' is a term, which establishes the relationship between two figures. It is relationship of one amount to another amount. Let us say that there are two figures Rs 20/- and Rs. 10/-. The relation of one amount, Rs. 20, to another, Rs. 10/-, is 'ratio' of Rs. 20 to Rs. 10. This can be expressed in different ways.

(i) Rs. 20 : Rs. 10 or *(ii)* Rs. 20 Rs. 10 or *(iii)* as the quotient (Resultant figure when divided) of "Rs. 20 Rs.10" or *(iv)* as the quotient to the divisor or *(v)* the quotient expressed as percent using divisor as the base.

These five forms are further expressed as follows:

1. Rs. 20 : Rs. 10 (numerator (Rs. 20) is to denominator (Rs. 10)
2. Rs. 20 Rs. 10 (numerator denominator)
3. 2 *i.e.*, quotient of Rs. 20 (numerator) and Rs. 10 (Divisor).
4. 200 *i.e.*, quotient multiplied by 100.

Now, What is a Ratio?

A 'ratio' is a word which expresses the relationship between two variables or figures. It has a numerator and denominator. It can be expressed as a simple fraction, integer, decimal fraction or percentage.

The ratio can be expressed as :

(a) Pure Ratio and *(b)* Percent or percentage ratio *(c)* Times Ratio.

(a) Pure ratio is exhibited as X:Y or a:b or numerically 3:1 3:5 etc.

(b) Percentage ratio is expressed as

$$\frac{(X)}{(Y)} \times 100 \text{ or } \frac{3}{1} \times 100 \text{ or } 300\%.$$

(c) Time ratio is expressed as thrice or three times of (*i.e.*, 3:1).

Any of these three ratios can be adopted for studies depending upon the characteristic of the items. For *e.g.* "Liquidity Ratio" (one of the B/S ratios) can be expressed in pure from 2:1 or percent from as $\frac{2}{1} \times 1{,}000$ But Liquidity Ratio is always expressed in pure from *i.e.*, 3 : 1. What we observe in pure ratio is that the denominator is always one or unity. "Unity provides a continuous and identical bench marking with reference to which the status of the numerator can be assessed for its quantitative and qualitative dimension:"

On the other hand, profitability ratios can be well expressed in percent ratios. The ROI or the relationship between profit and capital is expressed in a percent ratio. For *e.g.*: when we express profitability we say it is 300 percent. But we do not say it is 3:1 or three times.

The speed of the movement of the resources are best expressed as "times ratio." For *e.g.* : Turnover divided by capital is expressed as "times" ratio. This explains the position well when compared to percent or pure ratio.

Thus, a ratio helps to assess the performance of an organisation. It is a very important tool in the financial analysis. It facilitates the top management to take sound managerial decisions. The magnitude of the related items can be effectively expressed in terms of ratio.

DEFINITION

1. The relation of one amount, **a** to another **b**, expressed as the ratio of "a to b" — *Kohler.*

2. "A number expressed in terms of another."
3. "Ratio is a yardstick used to evaluate the financial condition and performance of a firm, relating to two pieces of financial data to each other." — *James C. Van Horne*
4. "Ratio is a fraction whose numerator is the antecedent and denominator the consequent."
5. "Ratio is the relationship or proportion that one amount bears to another, the first number being the numerator and the later denominator." — *H.G. Guthmann*

All these definitions clearly indicate one simple point regarding ratio. That is, the 'ratio' is a relationship between two figures or factors or variables. This relationship helps to know the financial condition and performance when applied to the financial data.

KINDS OF RATIOS

There are three basic kinds of ratios regarding financial statements. They are:

(1) Balance Sheet Ratios or Position Statement Ratios or Financial Ratios.

(2) Revenue Statement Ratios or Income Statement Ratios.

(3) Combined Ratios or Inter statement Ratios.

1. Balance Sheet Ratios: These ratios are those whose numerator and denominators can be identified in the balance sheet. As we know, the balance sheet explains the financial status of an organisation on a given date. Hence, these ratios are also called "Financial Ratios". Examples are (1) Current Assets to Current Liability Ratio; (2) Assets to Proprietor's Funds; (3) Debt to Equity Ratio etc. These are explained in full elsewhere in this chapter.

2. Revenue Statement Ratios: These ratios are the ones which can be calculated from a revenue statement like profit and loss account. Here again both the numerator and denominator can be ascertained from the income statement itself or profit and loss account. Examples are (1) expenses to sales, (2) inventory to sales. It should be noted here that revenue statements also exhibit the result of operations. Hence, these ratios are also called "Operating Ratios."

3. Combined Ratios: These ratios are computed from taking the figures from both the balance sheet and profit and loss account or revenue statement. For example (1) profit and assets ratio (2) sundry debtors to sales, etc. In the first ratio, profit figures are taken from the profit and loss account and assets are taken from the balance sheet. Thus the relationship is established between revenue statement figures and balance sheet figures. That is why they are called "Combined Ratios" or "Inter-Statement Ratios."

The chart on the following page show the classification of ratios and the types of ratios computed under each classification.

The ratios are also classified according to certain functions to conduct certain tests to know the financial performance. Certain classifications are made according to the importance and the nature of these ratios. To name some of them (1) liquidity ratio (2) leverage ratios (3) activity ratios (4) primary ratio (profit to capital) (5) secondary ratio (ratios computed to know inter-firm comparison (6) tertiary ratio (sub-category of the secondary ratio).

These ratios are adopted to serve some end purposes. They may be computed to know liquidity, solvency and stability, profitability, turnover and overall performance of an enterprise.

Importance

The importance of ratios cannot be undermined. They play a vital role in effectively measuring the financial solvency, profitability, liquidity and management efficiency of an organisation. The importance of the ratio analysis is identified from the following aspects.

(a) Its importance lies in analysing the probable casual relationship between two past result.

(b) By effectively using the ratios, one can find out the growth or decline of an enterprise with the help of them, future actions can be taken.

(c) Ratios make comparison easy. The said ratio is compared with the standard ratio and this shows the degree of efficiency, utilisation of assets etc.

(d) The result of two companies engaged in the same business can be easily compared (inter-firm comparison) with the help of ratio analysis.

(e) Short-term liquidity position and long-term solvency position can be easily ascertained with the help of ratio analysis.

Limitations

This tool has the following limitations:

1. Comparison of two variables with the tool of ratio analysis will be fruitful when proper method of valuation is adopted by the firms and the method is identical. But in actual practice different methods are followed by different com-

panies regarding the valuation of stock or fixed assets or other current assets.

2. Ratio analysis is the comparison of two figures which are picked-up either from income statement or balance sheet. But how far these figures are true is a point to be noted. In most of the financial statements, Stock figures, Profit, etc, are either blown up or suppressed, True profit is not normally exhibited. There will be window dressing and the ratios computed by adopting such figures do not exhibit the real position. We can find out some structural defects from ratio analysis.
3. Ratio analysis is more useful, when figures are compared with the previous years figures. When adopted or a particular year, it will throw full light on the concerned financial aspect and sometimes it cannot be fully relied upon.
4. Ratios cannot be a standard one. It varies from company to company, industry to industry and even between different periods, in the same firm, in the same year. In the absence of standard ratios, ratio analysis has a limited application.
5. Ratios are computed on the basis of historical data. In other words, they are obtained by adopting existing figures. We cannot forecast anything adopting ratios. Hence it cannot be forecasting tool.

Which Ratio is Helpful to Whom?

There are a number of categories of people connected with the ratio analysis. They are: (1) Share holders, (2) Management, (3) Creditors, (4) Investing public, (5) Government, (6) Financial Institutions. These institutions and people are connected with one issue or the other of the company *viz.*, (1) Liquidity and solvency (2) Profitability (3) Capital structure (4) Management strength and efficiency. To know about these aspects different ratios are adopted. The following information will facilitate to know the use of ratio to different issues and persons.

1. To assess the liquidity and solvency of the firm, following ratios are adopted:
   - *(1)* Current Ratio.
   - *(2)* Liquid Ratio or Quick Ratio.
   - *(3)* Proprietary Ratio.
   - *(4)* Debt-equity Ratio.

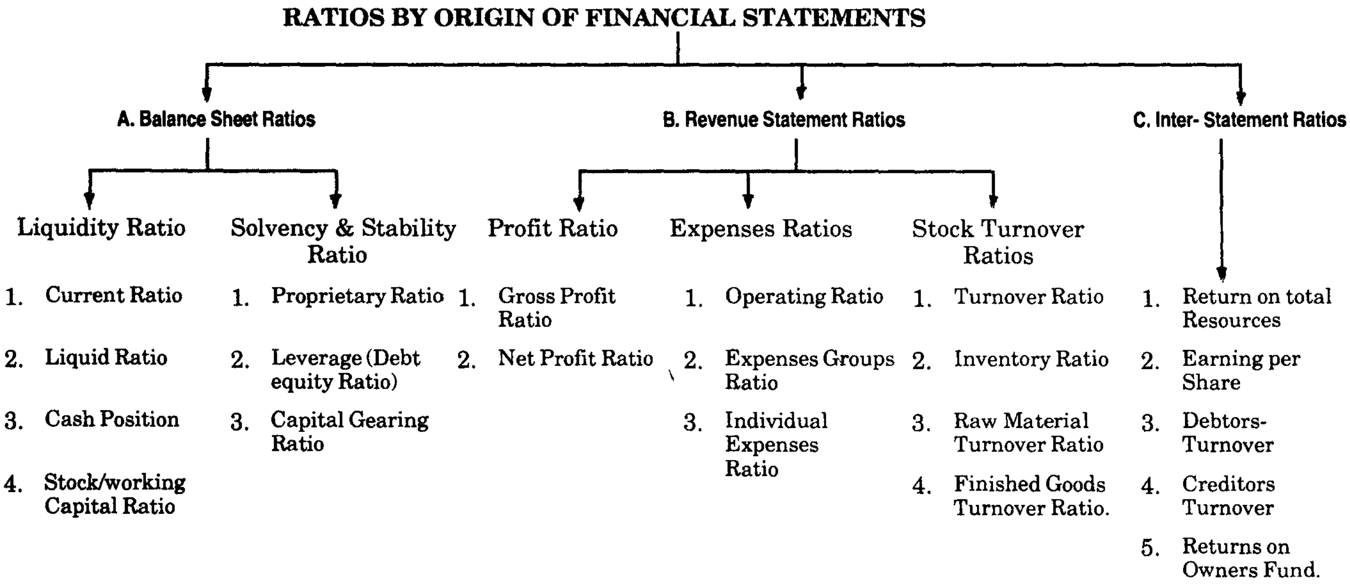


Fig. 7.1 Ratros of Financial Statement

2. To know the profitability of the enterprise , the suitable ratio are :
   - *(1)* Gross profit ratio.
   - *(2)* Net profit ratio.
   - *(3)* Operating ratio.
   - *(4)* Return on Capital employed (ROE).
   - *(5)* Dividend ratio.
   - *(6)* Price earning ratio.
   - *(7)* Earning per Share.
   - *(8)* Dividend per share.
3. To assess the capital structure,
   - *(1)* Equity capital ratio.
   - *(2)* Long term loans to net worth.
   - *(3)* Capital gearing ratio are adopted.
4. To ascertain the management strength, following ratios are adopted :
   - *(1)* Turnover to working capital ratio.
   - *(2)* Turnover to total assets ratio.
   - *(3)* Operating ratio.
   - *(4)* Stock-Turnover ratio.
   - *(5)* Debtors turnover ratio.
   - *(6)* Creditors Turnover ratio.
   - *(7)* Current Assets to fixed assets ratio and liquidity ratio.

With this brief introduction about the ratios, let us now examine one by on the three major categories of ratios. They are: (1) Balance Sheet ratios, (2) Revenue Statement Ratios; and (3) Combined Ratios or Inter-Statement Ratios.

1. BALANCE SHEET RATIOS

Balance sheet ratios, as stated earlier, are the ratios obtained from adopting the figures of the balance sheet. These are also called "financial ratios." The ratios that are computed from the balance sheet are :

(1) Current Ratio or 2:1 ratio or working capital ratio or Solvency (short term) ratio.
(2) Liquid ratio or Quick ratio or Acid Test ratio.
(3) Debt to equity ratio or Leverage ratios and their allied ratios such as:

   (i) Proprietary ratio, or Capital ratio.
   (ii) Ratio of Fixed Assets to Proprietor's Funds
   (iii) Ratio of Current Assets to Proprietor's Funds

(4) Interest coverage ratio and Debt Cash Flow Coverage ratio.

These important balance sheet ratios are explained in the following paragraphs.

1. Current Ratio:

This ratio is called by different names such as '2:1 ratio', working capital ratio, solvency (short-term) ratio. This ratio emerged out of the experience of the bankers who wanted to compare the current assets to current liabilities before lending money to the commercial and corporate enterprises. This ratio helps to know the solvency and liquidity of the firm. The ratio is connected with the working capital and hence it is called "Working Capital Ratio."

The current liabilities which include (1) Trade creditors (2) Bills payable (3) Outstanding expenses (4) Income tax payable etc., are normally paid out of current assets such as (1) Book Debts (2) Bills Receivable (3) Cash (4) Accrued income (5) Pre-paid Expenses (6) Readily convertible securities etc. The current assets should be equal to current liabilities to meet the immediate debts and obligations. Hence, the management as a safety measure will have 2:1 ratio *i.e.*, Rs. 2 in Current Assets and Rs. 1 in Current Liability. In case of current assets some of the assets, for example debts are not quickly realisable. Hence they maintain a safety margin. That is why 2:1 ratio is considered to be the sound ratio. Even stock cannot be converted into cash quickly. Considering all these aspects current ratio consisting Rs. 2 of current assets and Re. 1 of current liability appears to be a sound ratio and the firms work up on this proposition. However, the situation of the firm also determines the margin between current liability. If the organisation sells only on cash basis, the margin required may be less. In that case it may have 1.5:1. But, a firm would like to maintain anything above 2:1, as the surplus of Re. 1, will remain in the firm as working capital after the liquidation of current liability.

Current ratio is symbolically expressed as follows :

$$\text{Current Ratio} = \frac{\text{Current Asset}}{\text{Current Liabilities}}$$

As already stated earlier, the composition of current assets is, *(i)* Cash in hand and at bank *(ii)* Readily convertible or marketable securities *(iii)* Stock *(iv)* Sundry Debtors *(v)* Bills of exchange *i.e.*, bills receivable, pre-paid expenses.

The current liabilities comprise of bills of exchange (bills payable, sundry creditors, outstanding and occurred expenses, income-tax payable, bank overdraft, etc.)

Without properly valuing the current assets and current liabilities, the current ratio cannot be correctly arrived at. This means whatever the provisions made against the current asset or liabilities would be deducted and the net figure would be taken for computing the current ratio.

Illustration 1 :

A company has current assets of Rs. 9,60,000 and current liability of Rs. 2,40,000 what is the current ratio and working capital it has?

Solution:

Current Asset	Rs. 9,60,000
Current Liability	Rs. 2,40,000
Working Capital	Rs. 7,20,000

$$\text{Current Ratio} = \frac{2,40,000}{1,20,000} = 2 : 1$$

What Current Ratio Signifies?

In the above example we observe that there is Re. 1 of current liability and Rs. 4 of current assets. This indicates that current liabilities are less compared to current assets. In terms of percentage current liabilities are only 25% of the current assets. From the viewpoint of 'times ratio', it can be said that current assets are 'four times' the current liabilities. The conclusion that can be drawn from this is that the company has the strength to meet its maturing current liabilities. Even if 25% of the current assets are sold, the company can meet its current obligations. The remaining current assets *viz.*, 3 will keep the company in safe position to carry out its day-to-day activities. This means that sufficient working capital will be left with company to carry out its further activities.

Thus, the current ratio signifies the following :

(1) This is useful in assessing the solvency and liquidity position of the company.

(2) This ratio indicates the extent of current assets available to meet the current obligation. It is only from the current assets the immediate obligation (current liabilities) are

met with. Therefore the interest of creditors lie in this ratio.

(3) The safe ratio is 2:1. This means, for every current liability of Re. 1, there should be current assets of Rs. 2. So, that the firm can conveniently meet its current obligation even if the assets like stock or debtors are not quickly realised.

(4) In case of firms which have cash business, this ratio can be 1.5:1. Because, the liquidity position of the firm will be sound.

(5) This margin also leaves sufficient amount as working capital to carry out day-to-day transactions.

(6) The logic behind maintaining 100% and beyond margin of current assets over current liabilities is only a precautionary measure taken by the firms. This is based on the past experience.

(7) There may be window-dressing in the current ratio. In this case the current ratio does not exhibit a true picture.

What is Window-Dressing in Current Ratio?

$$\text{Current Ratio is } = \frac{2{,}40{,}000}{1{,}20{,}000} = 2:1$$

The management, instead of presenting this true balance sheet, may present in the following form. The change in the following balance sheet is due to the fact that, *(i)* The fixed assets to the extent of Rs. 60,000 are sold and the amount is not used for replacement of asset *(ii)* Stock to the extent of Rs. 40,000 are sold on credit and credit is not given to the purchaser.

Time Element

Current ratios are ascertained by taking the figures from the balance sheet of a specific date. But the current assets and current liabilities are ever changing items. Business activity is a continuous one and whenever the transactions take place, there will be change in these items. Hence, obtaining a current ratio after a month, or a quarter or half year from the date of balance sheet is useless. The internal accountant or a financial analyst can take the latest figures and obtain the true current ratio because, he will have access to the accounts of the firm. But the external analyst cannot obtain the latest figures relating to current assets and current liabilities. He cannot arrive at true current ratio and study the variation. He has to demand upon the annual published accounts of the firm which will be presented on the day he wishes to analyse the data. Hence, the liquidity and solvency position cannot be correctly ascertained. The ratio differs. This clearly indicates that current ratio has the "time element."

The current assets as exhibited in the published accounts (balance sheet) or in the books of accounts (balance sheet) do not have the same degree of liquidity and cannot be realised at their book values. Even if they are realised at full value today, the same amount cannot be realised in future. In other words, the figures relating to the current assets shown in books or balance sheet have "time value of money." Hence, the management accountant should also consider the "time value" of current assets to take current ratio as an index to liquidity. Hence, "Time Adjusted Current Ratio" has to be computed by the analyst to rely upon current ratio. The following formula has been adopted to arrive at the time adjusted current ratio.

$$D = \frac{1}{\left(1 + \frac{1}{100}\right)n}$$

Where D stands for Discount Factor, "i" for Annual earning rate and is taken as the discount rate "n" stands for time taken to convert the cash into cash. (This means from cash to finished products to debtors to cash).

(Note: The concept of time element has been given here as an information piece.)

Weights

It is now clear that all current liabilities are not repayable with same degree of quickness and all current assets are not equally liquid. Every component of current assets and current liability has to be discriminated according its degree of ease of convertibility into cash and the quickness with which each liability matures for payment. In order to recognize the liquidity character of current asset and fast maturity character of each current liability, appropriate **"WEIGHTS"** have not to be given to each component of current asset and current liabilities.

Merits of the Current Ratio

(1) It is a good index of the liquidity of an enterprise.

(2) It is a better measurement of the working capital conditions of an enterprise than absolute rupee amounts.

(3) In conjunction with other ratios it helps to assess the economic health of the enterprise. Thus, current ratio is one of the inputs to analyse the quality of the capital structure and the assets portfolio of an enterprise.

Demerits of the Current Ratio

(1) Any concept of a standard current ratio is rather vague and subjective. Hence, comparison with scientifically predetermined norms is difficult if not impossible.

(2) The current ratio does not communicate the inherent quality of liquidity vis-a-vis composition of the current assets.

(3) The current ratio is susceptible to window-dressing.

(4) The values of the items comprising the current assets are capable of being expressed in different rupee values, depending on the accounting policy of the enterprise/s concerned. In the case of an individual enterprise, if accounting policy undergoes change over a period of time, the inter-period comparison is meaningless. In the case of a number of enterprises, if the accounting policies vary, and they do vary, inter-firm comparison makes little sense. In this context, it may be noted that accounting polices related to the different techniques which enterprise can use to value the items. Thus, one example is the inventory valuation method like first-in-first-out, last-in-first-out, average cost and so on.

(5) The current ratio, computed from any balance sheet, is subject to the principle of 'relation'. Thus, the current ratio is suggestive of the cash power of an enterprise in the event of liquidation. The question of working capital needs are based on the assumption that enterprise will continue. Since the going concern assumption is implied in the very nature of accounting measurements and the resultant financial statements, a ratio with an assumption of liquidation, which is ruled out by definition, is of questionable conceptual integrity and theoretical soundness.

Quick Ratio or Liquid Ratio or Acid Test

The quick ratio is given as (quick current assets - current liabilities) and is expressed as a pure ratio or percent ratio. The numerator may be defined as

(a) Current assets minus inventory **or**

(b) Cash + debtors + temporary investment + accrued income

The first definition is a generic way of expressing the 'quick current assets'. Implied in the first definition is the inclusion of all items, except inventory comprising current assets. However, whether the items like prepaid expense and advance tax are to be included depends on the current assets definition in the current ratio. But, including the said items in the quick assets is not a correct approach. Because, quick assets are those items in the current assets which can be converted into cash very soon. Therefore, the second definition is more appropriate. For our purpose, conceptual as well as to compute the 'Quick Ratio', we will employ the second definition.

The denominator, current liabilities, is the same as discussed in respect of the current ratio. Given the above definitions of the numerator/denominator of the quick ratio, we can evaluate its significance. The quick ratio is a variant of the current ratio and is known by several names *viz.*, 'liquid ratio', 'acid test ratio'. It is test of the relative ability of the quick current assets to discharge the obligations assumed under the heading 'current liabilities'. The ratio measures "The amount of cash available for meeting immediate payments."

The reason why the items like inventory is omitted is to ascertain the intrinsic ability to realize cash. Thus, we are aware that inventories are the least liquid of the current assets. Moreover, it is not untrue to say that inventories are assets on which the largest losses will occur in the event of liquidation. The acid test helps in identifying the ability to command cash without disposing inventory, because it is assumed that inventory will not supply cash as readily as debtors or cash. The acid test is, therefore, supposed to be an improved, stringent, version of the current ratio in measuring the liquidity of an enterprise. Now, let us see the liquidity profile of M/s. B. Ltd., with the help of acid test ratio.

Illustration 2 :
Acid Test

	1987	*1988*	*1989*	*1990*
Current Ratio	1.3 : 1	1.5 : 1	1.4 : 1	1.2 : 1
Current Ratio (%)	1.30	1.50	1.40	1.20
Acid Test Ratio	2 : 1	3 : 1	3 : 1	3 : 1
Acid Test (%)	20	30	30	30

The acid test ratio can be expressed as numerator/denominator with denominator as one (pure ratio) or in percent form as shown above. By the elimination of inventory and other current assets like prepaid expenses, advance tax and balance with port trust, we can see the drastic change in the liquidity position revealed by the acid test vis-a-vis the current ratio. Thus, the current ratio reveals that every rupee of current liability is supported by more than a rupee of current assets while the quick ratio suggests the opposite, namely, that every rupee of current liability is supported by less than a rupee of current assets. This dramatic change in liquidity, by use of the quick ratio 'in lieu' of the current ratio reflects two facts:

(a) The current ratio does not provide adequate insight into liquidity health of an enterprise.

(b) The acid test, relatively, provides a better insight into the liquidity healthy of an enterprise.

Thus, in the measurement of liquidity the acid test is a necessary, though not sufficient, condition. It is implied that the current ratio is isolation can give a distorted view of the liquidity of an enterprise. The other interesting features of the 'acid test' are as follows:

(a) The relationship between the current ratio and the quick ratio; and

(b) The relationship between the inventory accumulation and quick ratio.

Current Ratio v/s Quick Ratio

If the quick ratio indicates a rather substantial decline the liquidity index, compared to the current ratio, the quick ratio reveals an unfavourable liquid ratio is associated with a favourable current ratio in view of inventory which bolsters the current ratio. The less the quick ratio, higher the incidence of inventory the current ratio. The higher the quick ratio, lower the incidence of inventory in inflating the current ratio. The data in Illustration 3 speaks for itself:

Illustration 3 :
Current Ratio V/s Quick Ratio

Details	*Company*	*Company*
	X *Rs.*	*Y* *Rs.*
Current Assets	100	100
Cash	10	10
Debtors	40	10
Inventory	50	80
Current Liabilities	50	50
Current Ratio	2:1	2:1
Liquid Ratio	1:1	2:1
Inventory as % of Current Assets	50	80

The following inferences can be drawn from the above table.

The current ratio is identical for both Cos. X and Y, revealing by that standards an identical index of the liquid health.

The quick ratio reveals that the liquidity of Co. X is much better than that of Co. Y. The quick ratio also suggests that:

(a) higher the quick ratio less the role of inventory (50% of current assets boosting the current ratio to a level of 2 : 1) (Co. X)

(b) lower the quick ratio greater the role of inventory (80% of current assets boosting the current ratio to a level of 2 : 1) (Co. Y)

Quick Ratio and Inventory Accumulation

The higher the quick ratio the lesser the accumulation of inventory. Thus, in Co. X, a liquidity ratio of 1:1 indicates accumulation of inventory of 50 per cent of current assets. However, in Co Y a low quick ratio (2:1) reveals a relatively high inventory accumulation (80%). Inventory accumulation and ratio bear an inverse relationship with each other.

2. STANDARD LIQUID RATIO

In the context of the current ratio we had discussed the idea of a standard current ratio. We had expressed the opinion that a standard current ratio was not really available although a current ratio 2 : 1 was a popular norm. The standard liquid ratio is also in the same boat. There is no scientific norm available regarding the standard liquid ratio, although 1:1 is regarded as suitable standard. Keeping in mind the purpose of the acid test, the idea of 1:1 seems all right. The acid test helps to ascertain the cash realisation power of the current assets to meet maturing obligations posit (assumed) as current liabilities. So long as every rupee of current liabilities is protected by current assets (quick assets) which can fetch cash fast, the abovementioned purpose of the acid test is well served. Yet, a 1:1 quick ratio is by no means a magic formula which can answer every dimension of the liquidity conditions of an enterprise.

However, as a general rule of thumb, the financial health of an enterprise may be considered as satisfactory, quick assets are greater than or equal to quick liabilities.

Advantages of the Quick Ratio

(a) It is an improved variant of the current ratio in arriving at a liquidity index for an enterprise.

(*b*) It eliminates the items which substantially affects the composition of the current assets and is, therefore, compared to the current ratio, more credible.

(*c*) It is a good ratio for cross checking the performance in other areas of economic management in an enterprises. Thus, the liquid ratio, cross-checked with inventory throws light on the inventory accumulation. In addition, the liquid ratio can throw light on certain other aspects of inventory management which will be pointed out later.

Disadvantages of the Liquid Ratio

An inherent advantage of the liquid ratio, as mentioned earlier, was the elimination of inventory from the current assets. But quick assets include cash, temporary investment and debtors. As Tucker puts it; "This ratio can also be misleading because of the influence of accounts receivables, a large portion of which may be considerably past dues." Thus, what inventory was to current assets, receivable could to be the acid test. In the quick assets, receivable are the least liquid, and susceptible to losses in the event of liquidation. Hence, we may look for a liquidity measure which can tell us the cash power of an enterprise without disposing inventory, collecting receivables, or liquidating financial assets (temporary investments).

Such a measure will give us a conservative yardstick about the cash position of an enterprise. Thus, by removing all items except cash in the numerator, and retaining current liabilities in the denominator, we can get what Tucker calls as the "cash- position ratio." To quote Tucker, "The use of this ratio in making an appraisal of liquidity is the most conservative." The cash position ratio is defined as follows:

$$\frac{\text{Cash on hand and at Bank}}{\text{Current Liabilities}}$$

The cash position ratio and the quick ratio bear between themselves an inverse relationship. Higher the cash position ratio, less the role of receivables in the quick ratio and vice versa.

While creditors may feel increasingly comfortable with the increasing value of this ratio, enterprise has to reconcile itself with the idea of declining profitability. Liquidity and profitability are, as already mentioned, in conflict.

The quick ratio is also liable to window-dressing by techniques which can inflate the value of debtors as on the date of the balance sheet. The disadvantages identified in respect of the current ratio hold in the case of the acid test too. Thus :

- *(a)* Many factors which affect the liquidity of an enterprise are not taken congnisance of in the quick ratio;
- *(b)* Accounting the policy relating to credit, terms and duration may vary from customers to customer and hence realisation cannot be precisely assessed by their quick ratio; and
- *(c)* What is true of debtors will be true of 'trade credit' (suppliers' credit policy.)

Like the current ratio, the liquid ratio also makes an assumption of the realisation concept *i.e.*, the realisation value of the assets in the event of liquidation.

The liquid ratio which is an acid test of the cash strength of an enterprise is more practicable and important as a day-to-day tool in financial institutions. Non-banking, non-financial ventures (trading and manufacturing concerns), can always stretch their liabilities as a matter of corporate financial strategy and mutual understanding between debtors and creditors. While the liquidity ratio provides a reasonably adequate insight into the cash power of the enterprise, the liquidity position based on the realisation concept is of limited use. The going concern assumption justifies resort to techniques like a 'Cash Budget' which can throw pragmatic light on the liquidity position of an enterprise.

Stock-Working Capital Ratio

The stock-working capital ratio is defined as (Stock+Working Capital) and is expressed as a per cent ratio, where stock refers to inventory defined as the rupee value of raw materials, work-in-process, finished goods, stores and packing materials. It may be noted that stock is valued at cost price or market price whichever is lower. Stock can mean either the rupee value of the closing stock as on the date of balance sheet or the average rupee value of the stock *i.e.*,

$$\left(\frac{\text{opening stock plus closing stock}}{2}\right)$$

Working capital means either gross working capital (current assets) or net working capital (current assets less current liabilities). Thus, the stock working capital ratio can be expressed as

- *(a)* closing stock + gross working capital
- *(b)* closing stock + net working capital
- *(c)* average stock + gross working capital
- *(d)* average stock + net working capital

Inventory is the least liquid of all the items comprising the current assets. Its realisation value is rather low. Hence, this ratio measures the extent to which the enterprise have committed the gross or net working capital funds in the least liquid items of inventory. In other words, it indicates the degree of importance of inventory in the working capital of the enterprise.

Consider the data in Illustration 4 where we have presented stock as percent of gross working capital and stock as per cent of net working capital.

Illustration 4 :

Stock: Working Capital

(Figures in Rupee)

Details	*Company I*	*Company II*	*Company III*	*Company IV*
Current assets	200	200	200	200
Stock	50	100	150	200
Debtors and Cash	150	100	50	NIL
Gross Working Capital	200	200	200	200
Current Liabilities	100	100	100	100
Net Working capital	100	100	100	100
Stock+ross working capital (%)	25	50	150	200
StockNet working capital (%)	50	100	150	200
Acid Test (%)	150	100	50	0

Stock Gross Working Capital

This ratio indicates the percentage of current assets committed in the form of inventory or stock, and measures the liquidity of an enterprise, given the premise that higher the proportion of stock to gross working capital, lower the liquidity of the working capital. Thus, at first sight we may say that this ratio and the liquidity of the enterprises bear an inverse relationship.

This is borne out by the behaviour of the liquid ratio, in Illustration 4. However, the extent to which inventory tends to immobilize the cash strength of an enterprise, depends on the quality rather than the quantity of inventory. To quote Tucker, "In some industries, a low level of obsolete inventory could be more serious than a higher level of resalable or utilizable materials. Thus, instead of commenting on the liquidity of the enterprise on the basis of this ratio, it is useful, and necessary, to perform the acid test via the liquid ratio. The stock/gross working capital ratio and the liquid ratio have to be viewed in juxtaposition (side by side) rather than in isolation in. We have four enterprises Cos. I, II, III and IV. The stock/gross working capital ratio is 25,50,75 and 100 percent in the cases of I, II, I, III and IV respectively. As the stock-working capital ratio increase, the cash power of the enterprises weakens. Thus, in Co. I, 75 percent of the current assets are committed in liquid uses, while Co. II the reverse is true. Again, in the case of Co. III the entire gross working capital is committed in inventory. In any case, and it is truism to say so, the stock/gross working capital ratio can never exceed one.

Stock Net Working Capital

This ratio, as can be seen by the definition, uses the difference between current assets and current liabilities as the denominator. The denominator, in rupees, shrinks to the extent of the current liabilities. The ratio in integer form or percentage gets inflated automatically. Given a constant rupee value of current assets and current liabilities on the lines of the data in Illustration 4 we can say, lower the ratio, greater the extent to which inventory in particular and current assets in general, are financed out of the current liabilities. Thus, in case of Co. I where this ratio is 50% (lowest compared to Cos. II, III and IV) 100 percent of the inventory, and about one-third of cash and debtors are financed out of current liabilities. In the case of Co. IV, where this ratio is 200 per cent, only 50 per cent of the inventory is financed out of the current liabilities. There ratio is suggestive of the role of non-liabilities in supporting current assets.

This ratio indicate management financial policy in "proportioning its net working capital to the least liquid.........segment of that capital."

A high proportion is indicative of : *(a)* poor liquidity conditions prevailing in the enterprise: and *(b)* lack of proper co- ordination between stock accumulative (production and/or purchase) and stock disposal (marketing or selling).

Another important function of this ratio is to measure the performance of an enterprise with respect to inventory management, because the measurement of inventory management performance with respect to sales can be misleading. Illustration 5 presents data which proves this point.

Case A has the lowest quantum of inventory committed in its current assets, and its sales-inventory performance, shows an index of 2. However, in Cases B and C although the liquidity strength is declining. (case C being worse than case B) the sales-inventory index is stable at. 2. Thus judging the performance of inventory management by the sales-inventory ratio, cases A, B and C will get equal marks, although the inventory performance measured by the (stock working capital) ratio shows different quality of inventory management in different cases. Thus, in the above case even a marginal devaluation of stock values, can seriously impair the economic health of the company in terms of :

Illustration 5 :

Stock : Working Capital *(Figures in Rupees)*

	A	*B*	*C*
Sales	100	150	200
Inventory	50	75	100
Gross Working Capital	200	200	200
Net Working Capital	100	100	1000
Sales Inventory (Times)	2	2	2
Inventory Gross Working Capital	25%	37.5%	50%
Inventory Net Working Capital	50%	75 %	100%

Case A has the lowest quantum of inventory committed in its current assets, and its sales-inventory performance, shows an index of 2. However, in case B & C although the liquidity strength is declining, (case C being worse than case B). The sales-inventory index is stable at 2. Thus, judging the performance of inventory management by the sales-inventory ratio, cases A, B, and C will get equal marks. Although the inventory performance measured by the (Stock + Working Capital) ratio show different quality of inventory management in different cases. Thus, the above case even marginal devaluation of stock values, can seriously impair the economic health of the company in terms of:

(*a*) Liquidity because of the diminished cash potential of inventory one and

(*b*) Profitability because of the depreciation of stock values which have to be expressed off (written off).

As Tucker rightly puts it, "The net working capital is not as volatile as sale, and, therefore, the tendency or management to let inventory follow sales will be lessened when the effect of this increased inventory is equated against the working capital."

Merits

(*a*) This ratio throws light on the quality of current asset management.

(b) This ratio helps to assess the role of non-current liabilities in the support of current assets.

(c) This ratio provides a cross check with:

  (i) The acid test (liquid ratio) on the liquidity of an enterprise; and

  (ii) The inventory-sales ratio on the performance of inventory.

(d) This ratio throws light on the quality of judgement exercised by management in evolving a proper balance between stocks and sales.

Limitations

There are many ways of computing the value of stocks and inventory, resulting in possible confusion. In an enterprises, between different periods, the values of the numerator and denominator have to be consistently defined. Again in inter-firm comparison, the policies involved in arriving at the values affecting the ratio may be different. Hence, inter-firm comparison may give misleading results unless there is consistency in the accounting and arithmetical methods employed in this regard.

The environmental factors which greatly influence and exclusively determine the policy regarding inventory accumulation are ignored. If an enterprise experience acute shortage of raw materials, it has a natural tendency, as a matter of precaution to procure and store all that is available almost regardless of the price. Again, if a new product is being launched, an enterprise may prefer to stock beyond what is normally considered as reasonable levels, till such time as the product image is established. Enterprise would dislike to turn new and potential customer away for want of stock.

Yet, another reason why inventory may be accumulated is, in an inflation, currency (cash) loses purchasing power faster than financial assets (share, debentures, marketable securities) and physical assets (raw materials, finished goods, etc.) The inventory is a hedge against the adverse consequences of price level changes. The above factors may be intangible but they are a part and parcel of corporate economic policy. The ratio under consideration, namely, the stock-working capital ratio, is of limited use of that extent. Thus, it should not be difficult to see that the idea of a standard stock-working capital ratio will not really work particularly when many judgement considerations are involved, the intangible factors have to be assessed and the imponderable have to be evaluated.

STABILITY AND SOLVENCY

Ratios — Proprietary Ratio

The proprietary ratio, also known as 'owner's fund ratio', 'shareholder's equity ratio', 'equity ratio', 'net worth ratio,' expressed the relationship between the contributions of owners (numerator) and the contributions of owners plus outsides (denominator). The formula for this ratio may be written as follows :

$$\frac{\text{Owners' Fund}}{\text{Total Funds}}$$

Owners' Funds mean the sum of the paid-up equity share capital plus preference share capital plus proprietary reserves (reserves on revenue account like general reserves and profit and loss account credit balance and reserves on capital account *i.e.*, capital reserves). From the sum so arrived at, intangible assets like goodwill and fictitious assets capitalised as 'miscellaneous expenditure' may be deducted. Total Funds mean the total of the rupee value of the liabilities side of the balance sheet. Thus, total funds imply the sum of the ownership capital and creditor ship capital. It may be noted in this regard, and it is truism to say so, that the rupee value of the liabilities side equals the rupee value of the assets side.

Hence, the denominator may be defined in any one of the following two ways :

(a) $\text{Total Liabilities} = \frac{\text{Ownership Capital plus}}{\text{Creditorship Capital}}$

(b) Total Assets = Fixed Assets plus Current Assets.

$$\frac{\text{Owners' Funds}}{\text{Total Liabilities}} \quad \text{OR} \quad \frac{\text{Owner's Funds}}{\text{Total Assets}}$$

It may be noted that total assets include fixed assets, current assets but exclude fictitious assets like preliminary expenses, profit and loss account debit balance etc.

The proprietary ratio is usually expressed as a 'per cent ratio'. This ratio is used to measure the involvement of the owners in the total resources available (sources) and committed (assets or uses) in an enterprise. The contribution of the owner's regarded as the financial base or backbone or foundation of an enterprise. The ratio, therefore, gives an idea of the stability of the enterprise. Needless to mention, the stability of an enterprise is functionally related to its foundation. The arithmetic of the formula suggests that the ratio will always be less than or equal to 1 (100% ----say). Obviously it cannot exceed one. When the ratio approaches unity, it indicates that the owner's stake in the business is on the increase. When the ratio shy away from unity, it means that the owner's strike is decreasing and the outsiders (borrowed capital) role is assuming relatively greater importance.

If the ratio equals unity, it implies that all uses of finance are supported by the owner's. In such a case, ownership capital is the exclusive source of finance. Theoretically, the value of this ratio at unity, may be considered to be sound position because it is believed that higher the ratio sounder the capital structure. And, remember unity is the highest possible arithmetic value which this ratio can assume. As the ratio tends to 100% the financial position tends to increasingly improve.

As Tucker puts it: "It is desirable to keep this ratio as high as possible, for it indicates a strong financial architecture, one which the creditors regard favourably, since it shows a lower level of borrowed capital or a higher level of owner-contributed funds."

Now, the question arises how close to unity, or how far from unity should this ratio be? In this context, this ratio is an exercise in the evaluation of the quality of the capital structure of an enterprise. The design of the capital structure of an enterprise should be such that it derives due inspiration from the ownership capital as well as creditorship capital. It should be noted that by definition the presence of creditorship capital in capital structure implies "LEVERAGE'. Therefore, the real question is what should be the extent of involvement of owner and outsides in the capital structure. Or, what should be the role of risk capital and the degree of leverage in the capital structure. The proportion of proportion of proprietor's funds to total funds indicates balance (or otherwise) between the internal financing and external financing. Thus, if the (proprietor's fund total funds),

(a) equals unity, internal source is 100 per cent and external financing zero:

(b) equals zero, internal financing is zero and external financing is 100 per cent;

(c) equals 5, internal financing and external financing are in the ratio of 1:1;

(d) is greater than 5, internal financing exceeds external financing; and

(e) is less than 5, internal financing is less than external financing.

In the real world, this ratio is neither zero nor unity. It away lies somewhere between the two extremes.

STUDY QUESTIONS

Part — A

(2 marks question-Answer in 4 lines each)

1. What do you mean Accounting Ratios?
2. Define the term 'Ratio'.
3. What do you mean by Balance Sheet Ratio?
4. What do you mean by Revenue Statement Ratios?
5. What do you mean by combined ratios?
6. What do you mean by current ratio? **(B.U. Apr. '99)**
7. What do you mean by acid test or liquid ratio?
8. What do you mean by proprietary ratio?

Part — B

(8 marks questions — answer in 30 lines each)

1. State the importance of ratio analysis.
2. What are the limitations of the ratio analysis?
3. State and analyse the significance of current ratio with an imaginary illustration.
4. State and analyse the significance of liquid ratio with an illustration.
5. State and analyse the significance of proprietary ratio with an example.
6. What is window-dressing in current ratio? Analyse this with an illustration.

Part — C

(15 marks question — answer in 3 pages each)

1. Give an explanatory note on the various aspects of Accounting ratios.
2. Give an explanatory note on Balance Sheet ratios.
3. "Ratios are mechanical and incomplete." Explain.

PART — II

Revenue Statement Ratios — Gross Profit Ratio — Operating Ratio — Expenses Ratio — Net Profit Ratio — Balance Sheet and Revenue Statement Ratio — Net Profit to Total Asset Ratio — Return on Proprietor's Funds — Earnings per Share — Price Earning Ratio — Sales to Debtors Ratio — Sales to Stock Ratio — Efficiency Ratio — Activity Ratio

INCOME STATEMENT RATIOS

In the last chapter we have discussed the basics of accounting ratios and balance sheet ratios. We shall now examine the income statement ratios and combined statement ratio.

Revenue Statement Ratios

These ratios are concerned with the profit and loss account. Following ratios are normally computed from this statement.

(1) Gross Profit Ratio. (2) Operating Ratio.
(3) Expenses Ratios. (4) Net Profit Ratio.

These ratios and their utilities are examined here.

GROSS PROFIT RATIO

The gross profit ratio is also known by the names, *(i)* Gross margin ratio, *(ii)* Trading margin ratio, *(iii)* Manufacturing margin ratio and *(iv)* Turnover ratio. This ratio is expressed in per cent and is computed as follows :

$$\text{G.P. Ratio} = \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$$

.This ratio exhibits the relationship of gross profit on sales to net sales.

Net Sales = Total net sales-Goods returned by the customers.

Gross profit = "Excess net sales over direct costs and factory overheads, and is, therefore, to be distinguished from marginal income, which is the excess of net sales over direct costs only." (Eric Kohler).

Utility of Gross Profit Ratio

Gross profit ratio helps in measuring the results of the trading or manufacturing operations. It shows the gap between revenue and expenses at a point after which an enterprise has to meet the expenses related to the non-manufacturing activities, like marketing administration etc. This ratio acts as an index of the mobility of an enterprise to meet *(a)* marketing expenses *(b)* administration expenses *(c)* finance cost *(d)* taxes *(e)* appropriations like dividend, etc. The following illustration will explain the activity of G.P. ratio.

Illustration 1 :

Let us suppose that a company has Rs. 1,00,000 sales and the cost of sales is Rs. 60,000 what can we infer from this?

G.P. = Sales – Cost of sales.

Rs. 40,000 = Rs. 1,00,000 – Rs. 60,000

$$\text{G.P. Ratio} = \frac{40{,}000}{1{,}00{,}000} \times 100 = 40\%$$

1. Ratio reveals that there is a 40% mark-up on sales and 66.66% mark-up on cost of sales.

$$\left(\frac{40{,}000}{6{,}0000} \times 100\right)$$

2. Every rupee of sales generates gross profit of Re. 0.40 or 40% on sales.

3. The gross profit generated per unit will change only if there is a change in sales prices realised per unit.

4. Gross profit ratio is a sensitive barometer reflecting the quality or two important functions of business, namely, production (cost of goods sold + expenses) and marketing (sales). This ratio reveals the extent to which sales promotion and cost control are successful in the enterprises. Causes for variation in gross profit can also be identified.

5. An increase in G. P. ratio may be due to an increase in the sales price without a corresponding increase in the cost of goods sold or decrease in the cost of goods sold without a corresponding fall in the sales price of good or omissions in purchase or inflation in sales figures or difference in valuing the stock.

Similarly, the gross profit ratio can also decline for positive reasons, like (1) decrease in selling price per unit (2) increase in the factory cost (3) a combination of (1) and (2) etc. The mechanics of accounting can also be operated to reduce G.P. ratio *i.e.*, under-valuing the costing stock, showing heavy purchase, deflating the sales figures etc.

Thus, the G.P. ratio is both favourably and unfavourably affected, because of the conceptual reasons and the mechanical aspects said above. The G.P. ratio throws light on the "high cost of production, following over failure to develop sales, under cutting of prices of incompetent management." This ratio is a useful index in identifying the quality of the marketing and production functions in its co-ordinated form as well as in isolation.

Illustration 2 :

Observe the following information:

	1989 *Rs.*	*%*	*1990* *Rs.*	*%*	*Change* *Rs.*
Sales	1,00,000	100	1,50,000	100	50,000
Cost of Sales	50,000	50	90,000	60	40,000
Gross Profit	50,000	50	60,000	40	10,000

From this data it can be observed that in 1989 G. P. ratio is 50%. From this is taken as standard, we can find out the reason for fall in gross profit in 1990. If in 1990, the situation of 1989 had continued, the gross profit should have been (1,50,00- Rs. 75,000 *i.e.*, 50% of sales) Rs. 75,000. But the G. P. has fallen to Rs. 60,000. The reason for this is that, the cost of sales has gone up by Rs. 15,000 *i.e.*, 10% up, although the sales has increased in the same ratio *i.e.*, 50%.

To conclude, the gross profit ratio is an index of showing the production and marketing expenses. This ratio also indicates the efficiency of production and marketing operation. Again it can be computed for a single product or multi-products. The efficiency is measured by comparing G.P. ratio with "STANDARD G.P. RATIO." Standard G.P. ratio is a computed by taking the historical data. This means, taking, G.P. ratio of a normal previous year. Example: The ratios in 1988, 1989 and 1990 are 20%, 30% and 36% respectively. The average will be 20 + 30 + 36 = 86/3 = 28.66% or say 28%

approximately. This can be considered as standard G. P. ratio. While computing standard G. P. ratio, it should be borne in mind that it should be able to provide adequate coverage of the non-manufacturing expenses (marketing, administration and finance), taxes, relevant appropriations and a standard expected plough-back. If there are similar enterprises in the industry the gross profit ratios of other units can be used as the reference level. but those units must be efficient units and their accounting policies are fairly uniform.

OPERATING RATIOS

The next revenue statement ratio to be discussed is the "Operating Ratio." Operating ratio expresses the relationship of cost of goods sold plus operating expenses to net sales. It may be expressed as

$$\text{Operating Ratio} = \frac{\text{Cost of goods sold + Operating Expenses}}{\text{Net Sales}}$$

The concept of cost of goods sold is explained under G.P. Ratio.

Operating Expense

Operating expenses consists of (1) Selling and distribution expense (2) Financial expenses (3) Administrative expenses.

The following illustration will better analyse this ratio.

Illustration 3 :

From the following data compute operating ratio.

1.	Cost of goods sold	Rs. 1,60,000
2.	Operating expenses	Rs. 20,000
3.	Net Sales	Rs. 2,00,000

$$\text{Operating Ratio} = \frac{\text{Cost of goods sold + O. Exp.}}{\text{Net sales}} \times 100$$

$$= \frac{1{,}60{,}000 + 20{,}000}{2{,}00{,}000} \times 100$$

$$= \frac{1{,}80{,}000}{20{,}00{,}000} \times 100 = 90\%$$

The ratio shows the cost of goods sold plus operating expenses as a percentage of sales. In other words operating cost of every Re. 1 worth of net sales amount to 90 paise.

Utility

The ratio indicates the operating efficiency of the company. It depicts the cost of picture of the debit aspect of the profit margin ratio. Higher the operating ratio, given a level of sales, lower will be profit margin or the net profit ratio. The converse is also true.

The purpose of computing this ratio is to measure the efficiency of the enterprise in terms of factory operations and non-manufacturing segments like marketing, administration and financing. It reflects on the quality of the management in the different activities of an enterprise, in totality. Supposing in the year 1990 the operating ratio is 70% and in the year 1989 is 65%. The year 1989 signifies a better quality of management in terms of cost than in 1990 which is 70%. Beyond this, comparison of the total picture of the costs incurred, nothing else is possible.

The limitation of operating ratio is that it is difficult to identify the segment of business which has caused the increase in expenses or contributed for the increase in profit or decrease in expenses.

A relationship can also be established between operating ratio and gross profit ratio. A high gross profit ratio can absorb the high operating ratio and can still give a satisfactory profit position. But when the operating ratio is abnormally high even the high gross profit ratio cannot absorb this and cannot present a satisfactory level of profit. Again a low G.P. ratio coupled with controlled non-manufacturing expenses can help the operating ratio to be within reasonable limits. And the net profit ratio can be salvaged to some extent.

Advantages of Operating Ratio

(1) The operating ratio is an useful yardstick to measure the efficiency of the enterprise, with respect to the inputs associated with the various functional areas of business management *viz.*, production (factory cost of sales), marketing, administration and finance.

(2) The operating ratio provides an useful link with the profitability of an enterprise in as much as the operating ratio bears and inverse and interpretation of the gross profit ratio vis-a-vis the operating ratio further insight relating to the quality of internal operations can be obtained.

(3) The operating ratio leads itself to the idea of standards and standard cost. Hence, an evaluation of the efficiency of an enterprise can be made with a fair degree of precision. Every enterprise has a typical operating ratio. The idea of laying down names is, therefore, a feasible proposition.

Disadvantages of the Operating Ratio

(1) The operating ratio in its numerator is the sum of the factory cost of sales and non-manufacturing expenses. Given the operating ratio, it is not possible at first sight to ascertain the impact of the functional areas of management on the operating ratio. Further analysis is a necessary condition for any comment on the segments causing the good/bad performance.

(2) The operating ratio in its numerator fails to distinguish between fixed expenses and variable expenses. And, without knowledge about the fixed-variable cost classification, profit planning and control is rendered difficult. Thus, beyond commenting on the high-low characteristic of the operating ratio it is not possible to offer any meaningful assessment of the state of health of an enterprise.

(3) The analyst has to understand one more limitations relating to the operation ratio. While some components of the numerator (variable expenses) lend themselves to scientific input-output ratios the other component, namely the fixed expenses do not lend themselves to predetermination on an input-output basis. This limitation has to borne in mind before attaching too much credibility to the idea that the operating ratio lends itself to standards and standard cost.

(4) Yet, another disadvantage of the operating ratio can be identified with the denominator. In those enterprises, where sales are stable the operating ratio can be given due credit for its conceptual integrity. However, if the sales are fluctuating the operating ratio has the potential of self-distortion. In other words, the mere change in the rupee value of the sales can alter the rate of the operating ratio Inefficiency is unnoticed, if the sales figure appears at a high level. And efficiency may be marked if the sales figure is abnormally at low level.

At this stage it is also necessary to have an idea about the "Operating Profit Ratio." It can be expressed as follows:

$$\text{Operating Profit Ratio} = \frac{\text{Operating Profit}}{\text{Net Sales}} \times 100$$

If the operating profit is Rs. 20,000 and net sales is Rs. 2,00,000, the operating profit is $\frac{20,000}{2,00,000} \times 100 = 10\%$. This ratio can also be arrived at as follows : O.P.R. = 100% Operating Ratio.

If the net sales Rs. 2,00,000 and operating expenses are Rs. 1,80,000

$$\text{OPR} = 100\% - 90\% \left(\frac{1,80,000}{2,00,000} \times 100 \right) = 10\%$$

The operating profit ratio shows the profitability of a business and its sales promotion. It also indicates the portion of sales which is left over after all current operating costs and expenses are met. Taking the above example, 10 paise per rupee of sales are left over for the company or to the shareholders.

EXPENSES RATIOS

Expenses ratios, or otherwise called cost ratios, show relationship between operating costs and expenses on the one hand and volume of sales on the other. In other words, these ratios express each element of cost and expenses as percentage of sales. Thus, one may find out the effectiveness of each element. The expense ratio is usually calculated in a per cent form. Thus it is per cent ratio. It can be expressed as follows.

$$\text{Expenses Ratio} = \frac{\text{Expenses}}{\text{Net Sales}} \times 100$$

Expense may be individual expense of group of expense of group of expenses. Following are important expenses ratios.

(i) Cost of goods sold to net sales. *(ii)* Factory cost of sales.

(i) Cost of Goods Sold to Net Sales: This ratio is expressed as follows:

$$= \frac{\text{Cost of goods sold}}{\text{Net Sales}} \times 100$$

This ratio may also be computed for each element of cost as below:

(a) Material cost of sales $\left(\frac{\text{Materials consumed}}{\text{Sales}} \times 100 \right)$

(b) Labour cost of sales or wages to sales $\left(\frac{\text{Labour cost or wages}}{\text{Sales}} \times 100 \right)$

(ii) Factory Cost to Sales: This ratio shows factory cost as percentage of sales. Accordingly the formula will be:

$$= \frac{\text{Factory Cost}}{\text{Sales}} \times 100$$

The following segment ratio can be found out to know the trend of expenses in each segment.

(*a*) Administration cost to sales $\left(\frac{\text{A.C.}}{\text{Sales}} \times 100\right)$

(*b*) Selling and distribution cost to sales $\left(\frac{\text{S \& D cost}}{\text{Sales}} \times 100\right)$

(*c*) Bad Debts to sales $\left(\frac{\text{Bad debts}}{\text{Sales}} \times 100\right)$

Thus expense ratios show the portion of net sales revenue which is consumed on account of various operating costs and expenses.

Illustration 4 :

From the following data calculate the expense ratio and segment ratios *viz.*, administration expense and marketing expense ratios.

	Rs.
Sales	4,50,000.00
Sales Returns	50,000.00
Administrative Expenses	60,000.00
Interest on loan	20,000.00
Marketing Expenses	40,000.00

(*i*) Expense Ratio $= \frac{\text{Expenses}}{\text{Net Sales}} \times 100 = \frac{60{,}000 + 40{,}000}{4{,}00{,}000} \times 100 = 25\%$

(*ii*) Administrative Expense ratio $= \frac{\text{Administrative expenses}}{\text{Net Sales}} \times 100$

$$= \frac{60{,}000}{4{,}00{,}000} \times 100 = 15\%$$

(*iii*) Marketing expenses ratio $= \frac{\text{Marketing expenses}}{\text{Net Sales}} \times 100$

$$= \frac{40{,}000}{4{,}00{,}000} \times 100 = 10\%$$

Utility

The expense ratios give an indication of the extent to which the credit effects of the revenue are neutralized by the debit impact of the expenses. The expenses ratios can, therefore, be said to have an inverse relationship with the profit ratio. There ratios are useful in knowing the following common aspects relating to profit and help the management to know the position of profit *i.e.*, whether the profit is on the increase or on the decrease.

(a) Higher the expense ratio, lower the profit and vice-versa.

(b) Higher the factory cost to sales, lower the gross profit.

(c) Higher the non-manufacturing expenses ratio. (Marketing, Administration, Finance, etc.) lower the net profit.

In every business enterprise, the concept of profit maximisation can be sustained by controlling two parameters *viz.* (i) Sales price (ii) Expenses per unit. In a free economy where competition plays a role in determining the price of the product, sales price cannot be controlled by the management. This type of control gets diluted. Again, in a controlled economy where the prices of end products are monitored, the control over revenue price will not be in the hands of the enterprise. Hence the major thrust of control is on the costs for expense ratio assumes special significance. But expense ratios have the limitation of securing precise data relating to each expense. If the management wishes to initiate cost control methods, to improve performance, vigorous controls are required on factory costs. but which element of the cost has to be given attention to cannot be said unless precise data on each cost element is available. Similarly with non manufacturing costs.

Advantages

The expense ratios presented in logical form can throw light on the efficiencies of internal operations of a business unit *viz.*, factory and non-manufacturing operations of business. It can show the extent to which the debit effects of a business eat into the credit effects. This is an indicator of health of an enterprise. The expense ratios are complementary to the profit ratios *viz.*, Gross Profit Ratio and Net Profit Ratio.

These ratios are easy to compute and simple to understand. This advantage strongly speaks of the expense ratios as a practical tools of financial analysis.

The expense ratios lend themselves to scientific standards and, therefore, provide readymade norms which can be used to compare the actual performance with predetermined performance. The (Standards may be obtained either by the examination of the historic data of the enterprise or by an investigation into the expense ratios of comparable units in the industry. Company's internal policies should also be considered in fixing the standards.

Disadvantages

1. Expenses ratios fail to distinguish between fixed and variable expenses without considering the behaviour of expense, it is no use in computing expense ratios. The control of expense is greatly influenced by the behaviour of expenses. In the absence of this information the use of expense ratio for profit planning is rather limited.
2. The expense ratios are expressed as "percent of sales." The incidence of expense is based on sales. Unless the sales is standardised (which cannot be done) the expense ratio becomes useless. As sales is volatile, the expense ratio misleads the enterprise about the performance of an enterprise.
3. The extent to which the expense ratios lend themselves to standard depends upon the quality of the cost data available in business. If the cost data are poor and proper information is not available, the standard will be suspect, when the quality of the standards is poor comparisons of actual performance with intended performance may not hold good.

NET PROFIT RATIOS

Net Profit Ratio expresses net profit as a percentage of sales. It can be computed as follows:

$$\text{Net Profit Ratio} = \frac{\text{Net Profit}}{\text{Net Sales}} \times 100$$

This ratio indicates the profitability and efficiency of the business. However, the ratio would be more useful if studied with operating ratio.

At this stage it is important to differentiate between *(i)* Operating Profit Ratio *(ii)* Net Profit Ratio.

Operating profit ratio differs from the net profit ratio in as much as it is calculated after adding non-operating expenses to the net profit and debiting non-operating expenses to the net profit and debuting non-operating expenses to the net profit.

Loss on the sale of assets, provision for legal damages etc., are examples of non-operating expenses which should be added to figure of net profits to arrive at the operating profit and interest, dividend received on investment etc., are examples of non-operating income which should be deducted from the net profit to arrive at the operating profit. Thus, obviously we may say that the net profit ratios takes into account the effect of non-operating income and expenses where as the operating ratio does not.

Utility

This is also a percentage ratio. This ratio shows the amount left to share holders out of sales, after meeting all costs and expenses. This ratio helps in controlling the cost of production and assists in increasing the sales. If the ratio arrived at is high, it indicates the good profit position and provides high return to share holders. The range of profit expected to normal is 5% to 10%.

COMBINED RATIO

(Balance Sheet and Revenue Statement Ratios)

Combined ratios are obtained by taking the figures from both the balance sheet and revenue statements. In this we discuss the following ratios.

(i) Turnover to Debtors *(ii)* Net profit to total assets ratio *(iii)* Return on Proprietor' funds *(iv)* Earnings per share *(v)* Price-earning ratio *(vi)* Sales to debtors ratio *(vii)* Sales to Stock ratio *(viii)* Efficiency ratio *(ix)* Activity ratio.

Let us examine these ratios:

1. Turnover to Debtors Ratio

This ratio is also known as "receivables." Turnover ratio is inter-statement ratio. The ratios is express as follows:

$$\frac{\text{Net Credit Sales}}{\text{Net Debtors or Net Receivables}}$$

Here net credit sales refers to the credit sales. Only credit sales has the relevance to debtors. Therefore net credit sales = Total sales *minus* sales returns *minus* sales discounts *minus* cash sales.

Debtors or receivables refers to gross receivables (Account receivables +B/R) *minus bad debts minus* allowances for doubtful debts.

This ratio indicates the number of times on the average that debtors turnover each year.

In this ratio, a high turnover ratio is considered to be favourable for the business. A high ratio implies better cash flow. If sufficient information is not available to credit sales, the debtors ratio will be computed as:

$$\frac{\text{Total Sales}}{\text{Closing Debtors}}$$

To ascertain the average collection period another type of debtor ratio is computed. Here the number of days in a year will be considered.

$$\text{Debtors' turnover ratio} = \frac{\text{Debtors}}{\text{Credit Sales}} \times 365$$

The collection period of 50 to 60 days are considered to be normal.

Illustration 5:

Following is the information available of X. Co. Ltd.,

	Rs.
B/R on 1-1-1990	1,50,000
B/R on 31-12-1990	2,50,000
Opening Debtors (1-1-1990)	2,00,000
Closing Debtors (31-12-1990)	3,00,000
Cash Sales for the year 1990	4,00,00
Total Sales for the year 1990	20,00,000

Calculate Debtors Turnover ratio.

Ans.: To compute the ratio we have to find out certain figures.

1.	Credit Sales : Total sales	Rs. 20,00,000
	Less: Cash Sales	Rs. 4,00,000
		Rs. 16,00,000
2.	Average Debtors : Opening Debtors	Rs. 2,00,000
	Opening B/R	1,50,000
		Rs. 3,50,000
	Closing Debtors Rs. 3,00,000	
	Closing B/R Rs. 2,50,000	Rs. 5,50,000

∴ (3,50,5000 + 5,50,000)/2 = 4,50,000

$$\text{Debtors Turnover Ratio} = \frac{\text{Credit Sales}}{\text{Average Debtors}}$$

$$= \frac{16,00,000}{45,000} = 3.56 \text{ times}$$

Utility : When the turnover ratio is expressed as times ratio, it indicates the debtors velocity and measures the speed with which the debtors are converted into cash. Higher the turnover of debtors, greater the speed with which cash is being collected from customers. The company has to improve the debtors' turnover ratio by increasing the sales volume and reducing the debtors.

When debtors' turnover ratio is expressed as a percent, it indicates the portion of "net sales" still blocked as debtors or receivables. Higher the ratio, greater the debtors and lower and slower the cash generation from customers.

Utility of the collection period ratio is that is shows the time lag in days between sales and the collection of bills. In other words the collection period represents the gestation period required for a credit sales transaction to convert itself into cash. Longer the gestation period, slower will be the cash collection and vice versa.

The collection period reveals the following:

(a) The liquidity of debtors.

(b) The nature of the credit policies of the enterprise.

(c) the quality of the debtors.

A long collection period signals an unfavourable quality of debtors management.

Advantages

1. It is simple to understand, particularly when expressed as a collection period ratio.
2. It helps to monitor credit and collection policies. It can signal the need for corrective action particularly if compared with a norm.
3. It highlights the impact of management policies on the liquidity of the enterprise as well as its profitability. It is a barometer of the general state of health of are enterprise.

Disadvantages

1. The data for objective computation of the average debtors' may not be readily available to the analyst using the published financial statements.
2. If presented in too many ways, it can confuse the managers and reduce the functional utility of the ratio.
3. By itself it may not be able to provide reliable insight into the health of the enterprise. It has to be cross-checked with the overall economic policy of the enterprise.
4. It does not easily lend itself to the idea of a standard.

2. Net Profit to Total Assets Ratio

This is a ratio which tells the proper utilisation of the assets. The efficiency of the management lies in the judicious use of the assets of the firm. The profitability of the firm can also be measured from this ratio. It may be expressed as follows:

$$\text{Net profit to Total Assets} = \frac{\text{Net Profit}}{\text{Total Assets}}$$

Similarly, net profits to fixed assets ratio can also be ascertained. This ratio exhibits whether fixed assets have been properly utilised or not in the business.

$$\text{Net profit to Fixed Assets} = \frac{\text{Net Profit}}{\text{Fixed Assets}}$$

3. Return of Proprietors' Funds

This ratio is calculated as follows:

$$\text{Return on Proprietors' Funds} = \frac{\text{Net Profit (PIT)}}{\text{Share holders' funds}}$$

(PIT. Profit after interest and taxes)

Thus, it represents the ratio of net profit to proprietors' funds. Here it is essential to give an explanation about proprietors' funds.

Proprietors' Funds : This fund consists of share capital (both equity and preference) and reserves and surplus. For the purpose of this ratio, average amount of share holders' funds is taken. It is calculated in the following manner.

$$= \frac{\begin{array}{c}\text{Opening balance of share holders}\\ \text{funds + cl.bal.of sh.Funds}\end{array}}{2}$$

Net Profit

Net Profit for the purposes of this ratio means the profit arrived at after taxation and interest on long term liabilities.

Illustration 6:

The following is the liabilities side of the Balance Sheet of ABC Ltd.

Liabilities	*Rs.*	*Rs.*
Share Capital:		
10000 equity share of Rs. 10 each	1,00,000	
5% 5000 Pref. shares of Rs 50 each	25,000	1,25,000
Reserves and Surplus:		
General reserve	40,000	
Reserve for Contingencies	15,000	
Capital Reserve	20,000	
Profit and loss A/C	15,000	90,000

The net profit for the year (after taxation and interest) was Rs. 64,500.

Calculate return on proprietors' founds.

1.	Proprietors' Funds	=	Rs. 1,25,000 + 90,000	=	2,15,000
2.	Net Profit after taxation			=	64,500

Return on Proprietors' Funds

$$= \frac{64{,}500}{2{,}15{,}000} \times 100 = 30\%$$

Therefore, the return on proprietors' funds is 30 paise per rupee.

This ratio is very useful to measure the overall profitability of the concern. It indicates the average return on the share holder's investment in the company. It is an index to the operational efficiency of the business as well as an indicator of profitability. This ratio is also called "Earning Ratio" as it reveals the rate of the earning capacity of the business. The higher the ratio, the greater will be the return for owners and vice versa. "This ratio measures the overall efficiency and profitability of an enterprise and reflects the economic productivity of the total resources employed by the business." The quality of management is ascertained by making a comparison of the returns on owner's funds over the past few years and the performance of similar units in the same industry. Thus it facilitates inter period and inter-firm comparison.

Return on Equity Capital : Return on Equity Capital is the ratio of net profit to equity share capital. Return on Equity Capital is calculated as:

Return on Equity Capital =

$$= \frac{\text{Net profit} - \text{Dividend due to Preference share holders}}{\text{Equity Share Capital}} \times 100$$

In terms of figures rate of return on equity capital would be

$$= \frac{\text{Rs. } 64{,}500 - \text{Rs. } 1{,}250 \text{ (i.e., Preference Dividend)}}{\text{Rs. } 1{,}00{,}000} \times 100$$

$$= \frac{63{,}250}{1{,}00{,}000} \times 100 = 63.25\%$$

Notes

(a) Some times, earning per equity share may also be calculated. It is calculated as:

$$\frac{\text{Net profit less dividend due to preference shares}}{\text{Total number of equity shares}}$$

$$= \frac{\text{Rs. } 63{,}250}{2{,}000} = \text{Rs. } 31.63 \text{ per equity share}$$

(b) Some times, return is calculated on total equity capital employed. Total equity capital employed consists of equity

share capital plus revenue reserves and appropriation of profits.

(c) As has been mentioned above, net profit for the purpose of calculation of return on equity capital, should be arrived at after deducting dividend due to preference shareholders. Moreover, if preference shares are participating preference shares, the participating dividend should also be deducted from the figure of net profit.

Utility**:** This ratio shows percentage return on equity capital or return per equity share. A high ratio may cause good marketable value of equity shares.

Meaning of Expression "Return On Capital Employed" And Advantages A Business Would Derive By Adopting The Return On Capital Employed Method for measuring the Overall Profitability of the Business.

Return on Capital Employed**:** Return on capital employed is the ratio of adjusted net profit to capital employed. It is expressed in percentage. The return on "Capital Employed" may be based on Gross Capital or Net Capital Employed. Formulation for calculation of return on capital employed is as follows:

$$= \frac{\text{Profit}}{\text{Net Capital employed}} \times 100$$

With the above ratio indicating return on net capital employed, it is also better to calculate the return on Gross Capital employed.

Let us discuss the components of the ratio:

(i) Net Capital Employed **:** Net capital employed consists of total assets (*i.e.*, Fixed Assets, Investments and Current Assets) of the business less its current liabilities (*i.e.*, creditors, bank overdraft, etc.) Thus,

Net Capital Employed =

Fixed Assets + Investments + Current Assets – Current Liabilities.

Thus, Net Capital Employed =

Fixed Assets + Investments + Working Capital.

In other words, we may also express the net Capital employed as below: Net capital employed = Issued share Capital + Capital Reserves + Revenue Reserves + Debentures and Long term Loans - Fictitious Assets.

(ii) Gross Capital Employed **:** Gross capital employed consists of the Total Assets of a business.

Thus, Gross Capital Employed =

Fixed Assets + Investments + Current Assets.

The following important points must be kept in view for computing capital employed:

(a) ***As regards Fixed Assets:*** Goodwill, Patents and Trade marks should be excluded from capital employed. Fixed Assets should be taken either at their written down value or at replacement cost. If replacement cost is taken, provision for depreciation should be calculated accordingly.

(b) ***As regards Investments:*** Investments and funds invested outside the business are excluded but those made in associated companies to increase earnings may be included.

(c) ***As regards Current Assets:***

(1) *Stocks:* Stocks of raw materials, work-in-progress and finished goods should be valued at cost price and should be included in capital employed. Obsolete stocks are excluded.

(2) *Debtors:* Amount of debtors should be included in capital employed after deducting there from a reasonable provision of bad and doubtful debts.

(3) *Cash and Bank Balances:* Cash-in-hand and at Bank should be included. However, any excess balance of cash at bank beyond normal requirements should be excluded. Bank overdraft should be included in the calculation of capital employed.

(d) Preliminary expenses, deferred revenue expenditure etc. Should be excluded and written off to the Profit and Loss account.

(iii) Adjusted Net Profit : Following adjustments should be made, if necessary, with the figure of net profit to arrive at the adjusted Net Profit for the purpose of computing return on capital employed : *(a)* Add any abnormal or non-recurring losses. *(b)* Add interest on long term liabilities. Moreover, of return on gross capital employed is to be calculated, add interest on short term liabilities also. *(c)* Add Income-tax paid and provision for income-tax. *(d)* Deduct additional depreciation based on the replacement cost. *(e)* Deduct income from investments outside the business. *(f)* Deduct any abnormal or non-recurring gains.

Utility : Return on capital employed shows overall profitability of business. At first, minimum return on capital employed should be determined and then the actual rate of return on capital employed should be determined and compared with the normal return. Computation of return on capital employed is of fundamental importance as it is based on two important components and determinants — Profit and Capital.

Advantages of Computing Return on Capital Employed

(1) It shows the overall performance of the business enterprise.
(2) It helps in evaluating and controlling capital expenditure projects.
(3) It helps in profit planning.
(4) It facilitates comparisons of the relative profitability of the various departments and the different types of products.
(5) It determines whether an alternative use of capital has been justified.

You are required to calculate Return on Capital Employed from the following information:

Illustration 7 :

ABCD Ltd.
Balance sheets as at 31st December 1990

Fixed Assets	*Cost*	*Accumulated Depreciation*	*Net Value*	*Rs.*
Building	60,000	—	60,000	
Plant & machinery	1,02,000	30,000	72,000	
	1,62,000	30,000	1,32,000	1,32,000
Investment:				
Outside the business			8,000	
In Associated Companies			2,000	10,000
Current Assets:				
Stock			18,000	
Debtors			15,600	
Less: Provision for bad debts				
Cash and Bank Balance			2,400	36,000
Less: Current Liabilities :				
Creditor		14,000		
Taxation		6,000		20,000
Net Capital employed				1,58,000

Represented By:			
Authorised And Issued Share Capital			
(i) 4,000 5% Pref. Shares of Rs. 10 each		40,000	
(ii) 6,000 Equity shares of Rs. 10 each		60,000	1,00,000
Capital Reserve:			10,000
General Reserve			20,000
Profit & Loss Balance			14,000
			1,44,000
5% Debentures			14,000
			1,58,000

Addition information:

1. Additions to original cost of assets necessary to convert to replacement costs:
   (a) Building Rs. 10,000
   (b) Plant & Machinery Rs. 22,000
2. Accumulated depreciation on replacement cost of plant and machinery would amount to Rs. 37,200.
3. Obsolete stock amount to Rs. 400.
4. The profit as per Profit and Loss Account for the year 1976 is Rs. 21,240.
5. Depreciation on Plant and Machinery charged during 1976 was Rs. 10,400; Depreciation based on replacement cost for the year is ascertained as Rs. 12,400.
6. Gain on sale of machinery Rs. 1,600; Bad debts recovered Rs.800; amounts written off; Goodwill Rs. 1,200; Income from investments outside the business Rs. 800.

(1) Calculation of capital employed As On 1st December 1990

Fixed Assets	*Cost*	*Accumulated Depreciation*	*Net Value*	*Rs.*
Building	70,000	—	70,000	
Plant & Machinery	1,24,000	37,200	86,800	
	1,94,000	37,200	1,56,800	1,56,800
Investments in Associated Companies				2,000
Current Assets:				
(i) Stocks		18,000		
Less: Obsolete Stocks		400	17,600	

(ii) Debtors	16,000		
Less: Provision for Bad Debts	400	15,600	
(iii) Cash and Bank		2,400	35,600
Gross Capital Employed			1,94,400
Less: Current Liabilities:			
(i) Creditors		14,000	
(ii) Taxation		6,000	20,000
Net Capital Employed			**1,74,400**

(2) Adjusted Net Profit

Profit as per profit & loss A/c		21,240
Add: Goodwill Written Off		1,200
		22,440
Less: *(i)* Gain on sale of machinery	1,600	
(ii) Bad Debts Recovered	800	
(iii) Additional Depreciation	2,000	
(iv) Income from outside Investments	800	5,200
		17,240

(3) Return on Capital Employed

(a) $$\frac{\text{Profit}}{\text{Net Capital Employed}} \times 100 = \frac{\text{Rs. } 17{,}240}{\text{Rs.} 1{,}74{,}400} \times 100 = 9.89\%$$

(b) $$\frac{\text{Profit}}{\text{Gross Capital Employed}} \times 100 = \frac{\text{Rs. } 17{,}240}{\text{Rs.} 1{,}94{,}400} \times 100 = 8.87\%$$

Notes: Net capital employed may be computed as below (*i.e.*, computation based on liability side.)

		Rs.
Capital, Reserves and Debentures		1,58,000
Add: Net Increase of fixed assets		24,800
		1,82,800
Less: *(i)* Assets not to be included (Investments outside the business)	8,000	
(ii) Decrease in Stock	4,000	8,400
Net Capital employed		1,74,400

Improvement of the Return on Capital Employed

Return on capital employed may be improved by the following important steps:

- *(a)* Reduction in the amount of capital employed through economic uses of capital.
- *(b)* Most profitable utilisation of fixed assets.
- *(c)* Rapid collection from the debtors.
- *(d)* Improvement in inventory levels.
- *(e)* Increase in profit by adopting the following ways:
  - *(i)* Increases in sales either by increasing the sales prices or by increasing the sales value or by both.
  - *(ii)* Reduction in the cost of production and other operating cost.

Notes: At this stage, it is important to note that basically the return on capital employed is the result of two important ratios—

(i) Profit margin ratio and *(ii)* Capital turnover ratio.

Accordingly, the basic formula for computation of return on Capital Employed is as —

$$\text{Return on Capital employed} = \frac{\text{Profit}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Capital employed}} \times 100$$

To illustrate, if the profit is Rs.50,000, sales are Rs. 5,00,000 and capital employed are Rs. 10,00,000, the return on capital Employed would be:

$$\frac{\text{Rs. } 50{,}000}{\text{Rs. } 5{,}00{,}000} \times \frac{\text{Rs. } 5{,}00{,}000}{\text{Rs. } 10{,}00{,}000} \times 100 = 10\% \times 50\% = 5\%$$

Thus, obviously increase in sales or decrease in capital employed will increase the return on capital employed.

4. Earning Per Share (EPS)

This is computed by dividing the net profit after tax and dividend to preference share holders. This avoids confusion and indicates the profit available to the ordinary shareholders on a "per share basis." This is computed as follows:

$$\text{EPS} = \frac{\text{N.P. after tax and Pref. Dividend}}{\text{Number of Equality Shares}}$$

Illustration 8 :

From the following data, calculate the earnings per share.

1. Net profit before tax Rs. 2,00,000
2. Tax at 40% of Net Profit.
3. 5% 1000 Pref. Shares of Rs. 100 each
4. Equity shares Rs. 4,00,000 face value Rs.10.

Working Notes

(i)	Net Profit after tax	Rs. 2,00,000
	Net Profit before tax	
	Less: Tax @ 40%	Rs. 80,000
		Rs. 1,20,000

(ii) Pref. Dividend

Pref. Capital 10 × Rs. 100 = Rs. 1,00,000

Dividend at 5% = Rs. 5,000

Profit Dividend = Rs. 1,20,000 - 5,000 = **Rs. 1,15,000**

(iii) Number of Shares $= \frac{4,00,000}{10} = 40,000$

Now EPS $= \frac{1,11,500}{40,000} =$ Rs. 2.875 or 28.75%

Utility : This is a very important ratio which influences the market price of the equity shares. This helps in comparing the earnings per share of other identical enterprises. This helps in comparing the earnings per share of other identical enterprises. With this comparison, the management can make out whether their share capital is efficiently employed or not. the capacity of the company to pay dividend to share holders is also assessed by EPS.

5. Price Earning Ratio

This is one of the important valuation ratios. Risk involved in the investment and return on investment are the two vital factors which influence the valuation. These two have a combined impact on valuation. This ratio is one of the important ratios in measuring the performance of the company. It is computed as follows:

$$\text{P.E. Ratio} = \frac{\text{Market Price Share}}{\text{Earning Per Share}}$$

Market price here refers to the price of equity share rules in stock market on a single day or the average of the prices of the said equity in a week or 15 days.

Supposing the price of Colgate-Palmolive is ruling in the market at Rs. 300 and EPS is Rs. 50 per share then PER will be Rs. 300/ Rs. 50 = 6. The implication of this "6" is that every one rupee in Colgate-Palmolive share is earning Rs. 6.

Utility

The utility of this ratio is that the investor can think of better investment by adopting this ratio. Even for the management this ratio helps in financial forecasting. This ratio helps in financial forecasting. The share valuation can also be easily assessed. The management can now whether the share is under valued or over-valued. The aspect of under valuation or over valuation can be understood by looking to the following illustration.

Illustration 9 :

X Co. Ltd. has an earning per share of Rs. 30 and its market price is Rs. 180. The earning ratio of similar companies is Rs. 7. Considering this earning ratio of Rs. 7 the market price of X. Co Ltd. should be Rs. 30 × 7 = Rs. 210. But the price is ruling at Rs. 180. This means, X Company's share is undervalued by Rs. 30.

Similarly, if the earning ratio of other companies is Rs. 5, the market price of X Company will be Rs. 30 × 5 = Rs. 150. This means the share of X Company is overvalued by Rs. 30.

6. Share to Debtor's Ratio

This ratio has been discussed already in this chapter. However, as a matter of reference it is repeated here.

$$= \frac{\text{Sales}}{\text{Average Debtors}}$$

7. Sales to Stock Ratio

This ratio is otherwise called stock-turnover ratio. the formula for computing this ratio is, $\frac{\text{Sales}}{\text{Inventory}}$. But normally to ascertain the stock-turnover, the cost of goods sold is taken as numerator and average stock (opening stock + closing stock + 2) will be taken as denominator. In the absence of data relating to cost of goods sold, sales figure will be taken.

Illustration 10 :

From the following data compute sales to stock ratio or stock to turnover ratio

	Rs.
Opening	1,99,000
Purchases	10,90,500
Incidental Expenses	28,500
Closing Stock	2,98,000
Working Notes:	
Cost of Goods Sold:	
Opening stock	1,99,000
Add: Purchases	10,90,500
Add: Incidental Expenses	28,500

	13,18,000
Less: Closing Stock	2,98,000
	10,20,000

$$\text{Sales to Stock ratio} = \frac{\text{Cost of goods sold}}{\text{Average Stock or inventory}}$$

$$= \frac{10{,}20{,}000}{\dfrac{(1{,}99{,}000 + 2{,}98{,}000)}{2}} = \frac{10{,}20{,}000}{2{,}48{,}500} = 4.1$$

This means the stock had a turnover of 4.1 times. But the normal turnover is 6 to 7 times. Hence the turnover has to be increased.

8. Efficiency Ratio

Efficiency ratio refers to the management efficiency. To assess the management efficiency following ratios are used. (1) Stock-Turnover Ratio. (2) Debtor's Turnover Ratio. (3) Turnover to Fixed Assets Ratio. (4) Turnover to total assets Ratio. (5) Creditors' turnover Ratio.

We have already discussed firs four ratios. Creditors turnover ratio can be computed as follows.

$$= \frac{\text{Creditors + Bills payable}}{\text{Creditors purchases}} \times 365$$

Let us understand that in a company creditors are Rs. 15,00,000, B/P in Rs. 50,000 and credit purchase in Rs. 16,00,000. If creditor turnover ratio is computed.

$$= \frac{15{,}00{,}000 + 50{,}000}{16{,}00{,}000} \times 365 = 46 \text{ days' credit}$$

This time period for payment can be considered as good.

9. Activity Ratios

These ratios are adopted to assess the effectiveness of the resources employed in the business activity. The company would like to have control over the funds employed in the business and these ratios tell the extent of control the firm has over the funds employed. If any gap is noticed by adopting these ratios, it can be immediately rectified. These ratios also analyse the use of resources and the utility of each component of total assets. The profitability of the firm can be determined by activity ratios coupled with the degree of leverage.

We have discussed so far various ratios relating to revenue statements, balance sheet and combined ratios. These ratios are to be carefully studied as alternative names are given to many ratios. In this and previous chapter only basic ratios are discussed from the stand point of knowing profitability, liquidity and solvency. Many other ratios can be studied from the point of advanced study. Based on these ratios, some additional illustrations are given for the easy understanding of the ratios discussed.

Illustration 11 :

The following summaries are prepared for you by the Accountant of Adarsh Products Limited from the Balance Sheet of the company as at 31st Dec' 1962:

	31-12-1962 Rs.	*Previous Year Rs.*
Share Capital		
Equity shares of Rs. 100 each	4,00,000	3,50,00
Reserves and Surplus:		
Premium on shares	20,000	20,000
General Reserve	70,000	50,000
Surplus in Profit & Loss A/c	12,500	7,500
	5,02,500	**4,27,500**
Current Assets:		
Stock in Trade	1,70,500	81,400
Sundry Debtors	1,42,700	85,600
Cash and Bank Balance	45,900	27,300
	3,59,100	**1,94,300**
Current Liabilities:		
Creditors	1,97,700	45,400
Proposed Dividend	20,000	12,000
Provision for Taxation	27000	10,000
	2,44,700	**67,400**
Fixed assets (at cost)	4,70,000	3,71,100
Less: Depreciation	81,900	70,500
	3,88,100	**3,00,600**

The following additional information is available from company's book:

(*a*) The profit for the year was Rs. 46,000.

(*b*) Income-tax Rs. 9,000 was paid during the year in respect of the previous year and the balance was transferred to General Reserve Account.

(*c*) The proposed dividend for the year 1961 was duly paid.

Your are required to prepare a statement showing (1) Current Ratio, (2) Liquid Ratio, and (3) Return on Proprietor's funds together with other comments.

Ans. (1) Current Ratio = Current Assets ÷ Current Liabilities

for 1962 $= \frac{\text{Rs. } 3{,}59{,}100}{\text{Rs. } 2{,}44{,}700} = 1.467 : 1$

for 1961 $= \frac{\text{Rs. } 1{,}94{,}300}{\text{Rs. } 67{,}400} = 2.884 : 1$

(2) Liquid Ratio = Liquid Assets ÷ Current Liabilities

for 1962 $= \frac{\text{Rs. } 1{,}88{,}600}{\text{Rs. } 2{,}44{,}700} = 0.771 : 1$

for 1961 $= \frac{\text{Rs. } 1{,}12{,}900}{\text{Rs. } 67{,}400} = 1.675 : 1$

(3) Return on Proprietors' Funds :

$$= \frac{\text{Net profit after tax}}{\text{Average Proprietors' Funds}} \times 100$$

for 1962 $= \frac{\text{Rs. } 4{,}600}{\text{Rs.} 4{,}65{,}000} \times 100 = 0.099 \times 100$

$= 9.9$ (Approx.)

Note: In the absence of any information regarding profits for the year 1961 Return on Proprietors' Funds cannot be calculated for that year.

Comments:

As revealed by the current ratios, the position for the year 1962 has deteriorated as compared with that of 1961. There is increase in debtors of about 75% and in stock of about 100% as compared with 1961. Cash and bank balances have increased by about 70%. However, with this increase in working capital, there is a considerable decrease in working capital by way of increase of more than 400% in current liabilities. This has resulted in low current ratio as compared with the previous year. Capital and general reserves have increased by small amounts but there is a considerable increase in fixed assets investment.

Following may be indicated on the basis of the increase in current assets and liabilities:

(a) Either sales have fallen off or the company has expanded its productive capacity.

(b) Efficiency of credit and collection department has reduced as compared with previous year.

(c) Abnormal increase in sundry creditors and also in investment in fixed assets and total absence of long term liabilities. We may conclude that the company has used short-term credits to finance fixed assets investment, *i.e.*, long term investments and has to depend upon short term credits for its current operations.

Liquid ratio read in conjunction with the current ratio indicate the company may not be able to meet its short term debts out of short-term assets.

Return on Proprietor's Funds is 9.9%. This return may not be said be effective enough to attract further investment from the public by way of issue of shares. As the share capital has been increased by Rs. 50,000 only but this issue is made at face value as there is no change in the balance on premium on shares. For the obvious reasons, the company may not be able to make additions to its share capital in 1962 at a premium.

Notes:

(a) Profit of Rs. 46,000 is assumed to be "after tax profit."

(b) Average proprietors' funds have been calculated as below:

For 1961 : Rs. 3,50,00 + Rs. 20,000 + Rs. 50,000 + Rs. 7,500
= Rs. 4,27,500

For 1962: Rs. 4,00,000 + Rs. 20,000 + Rs. 70,000 + Rs. 12,500
= Rs. 5,02,500

$$\text{Average for 1962 and 1961} = \frac{\text{Rs. } 4{,}27{,}500 + \text{Rs. } 5{,}02{,}500}{2}$$

$$= \text{Rs. } 4{,}65{,}000$$

Illustration 12 :

The following are the summarised Profit and Loss account of Hind Products Limited for the year ending 31st December, 1968 and the Balance Sheet as on that date.

Profit and Loss Account

	Rs.		*Rs.*
To Opening Stock	99,500	By Sales	8,50,000
To Purchases	5,45,250	By Closing Stock	1,49,000
To Incidental Exps.	14.250		
To Gross Profit	3,40,000		
	9,99,000		9,99,000

To Operating Exps		By Gross Profit	3,40,000
Selling & Distribution 30,000		By Non-operating Income	
Administrative 1,50,000		Profit on sales of Shares 6,000	
Finance 15,000	1,95,000	Interest 3,000	9,000
To Non-operating Expenses:			
Loss on sales of assets	4,000		
To Net Profit	1,50,000		
	3,49,000		3,49,000

Balance Sheet

Liabilities	*Rs.*	*Assets*	*Rs.*
Issued Capital 200 Equity Shares of Rs. 100 each	2,00,000	Land & Building	1,50,000
		Plant & Machinery	80,000
Reserves	90,000	Stock in trade	1,49,000
Current Liabilities	1,30,000	Sundry Debtors	71,000
Profit & Loss A/c	60,000	Cash and Bank balances	30,000
	4,80,000		4,80,000

From the above statement, you are required to calculate the following ratios and state the purpose they serve: *(i)* Current Ratio *(ii)* Operating Ratio *(iii)* Stock Turnover *(iv)* Return on Total Resources (v) Turnover of Fixed Assets.

(i) Current Ratio : $\dfrac{\text{Current Assets}}{\text{Current Liabilities}}$

$$= \frac{\text{Rs. } 1{,}49{,}000 + \text{Rs. } 71{,}000 + \text{Rs. } 30{,}000}{\text{Rs. } 1{,}30{,}000}$$

$$= \frac{\text{Rs. } 2{,}50{,}000}{\text{Rs. } 1{,}30{,}000} = 1.923{:}1$$

The minimum of two-to-one-ratio is normally referred to as a banker's rule of thumb standard of liquidity for a business. In this concern, the ratio in near to the said standard. However, considering the composition of current assets form a substantial part of company's current assets. Therefore, the current ratio of 1.923 : 1 with a lesser liquid items may not be said to be favourable.

(ii) Operating Ratio : $\dfrac{\text{Cost of Goods Sold + Operating Expenses}}{\text{Net Sales}}$

$$= \frac{\text{Rs. } 5{,}10{,}000 + \text{Rs. } 1{,}95{,}000}{\text{Rs. } 8{,}50{,}000} = 0.83 : 1 \text{ (or 83\%)}$$

Cost of goods sold has been arrived at as below:

Opening Stock	*Rs.*	*Rs.*
Opening Stock	99,500	
Add: Purchases	5,45,250	
Add: Incidental Expenses	4,250	6,59,000
Less: Closing Stock		1,49,000
		5,10,000

The ratio show that 83% of net sales are absorbed by the cost of goods sold and operating expenses. In other words, we may say on the basis of this ratio that out of every Re. 1 worth of net sales, 83 paise constitute the cost of goods sold and operating expenses.

Normally in case of manufacturing concerns, operating ratio is expected to touch a percentage of 75% to 85%.

(iii) Stock Turnover Ratio : $\frac{\text{Cost of Goods Sold}}{\text{Average Inventory at Cost}}$

$$= \frac{5{,}10{,}000}{1{,}24{,}250} = 4.1 : 1$$

Average Inventory at Cost

$$\frac{\text{Value of Opening stock} + \text{Value of Closing stock}}{2}$$

$$= \frac{\text{Rs. } 99{,}500 + \text{Rs. } 49{,}000}{2} = \frac{\text{Rs. } 2{,}48{,}500}{2} = \text{Rs. } 1{,}24{,}250$$

This ratio shows the velocity with which goods move through the business. For the concern under question stock is turned over slightly more than four times on an average.

(iv) Return on Total Resources : $\frac{\text{Operating Net Profit}}{\text{Total Resources (i.e., Total Assets)}}$

$$= \frac{1{,}50{,}000}{4{,}80{,}000} = 3 : 1 = 31\%$$

The ratio indicates a return of 31% on total assets during the year 1968. In other words, we may say on the basis of this ratio that the company earned Rs. 31 on every Rs.100 worth of total resources.

Return on Total Resources may sometimes be calculated on the basis of operating net profit instead of net profit.

$$\frac{\text{Operating Net Profit}}{\text{Total Resources (Total Assets)}} = \frac{\text{Rs. } 1{,}45{,}000}{\text{Rs. } 4{,}80{,}000} = 0.302{:}1 \text{ (or 30.2\%)}$$

Note: Operating Net Profit has been arrived at as below :

		Rs.
Net Profit		1,50,000
Add: Non-operating expenses written back		4,000
(*i.e.*, Loss on sale of assets)		1,54,000
Less: Non-operating Income excluded:		
(*i*) Interest	Rs. 3,000	
(*ii*) Profit on sale of shares	Rs. 6,000	9,000
Operating Net Profit		1,45,000

As per the ratio of Operating Net Profit to total resources the business has given a return of 30.2% on total resources during 1968. In other words, Rs. 30.2 are earned on every Rs. 100 worth of total resources.

$$\text{(v) \textit{Turnover of Fixed Assets}} = \frac{\text{Net Sale}}{\text{Fixed Assets}} = \frac{\text{Rs. } 8{,}50{,}000}{\text{Rs. } 2{,}30{,}000}$$

$$= 3.7:1$$

This ratio indicates that net sales amounted to Rs. 3.70 for every rupee worth of fixed assets.

Sometimes, fixed assets turnover ratio is the ratio of cost of goods sold to Fixed Assets.

Accordingly, fixed assets turnover =

$$= \frac{\text{Cost of Goods Sold}}{\text{Fixed Assets}} = \frac{\text{Rs. } 5{,}10{,}000}{\text{Rs. } 2{,}30{,}000} = 2.22:1$$

Thus, Fixed Assets turnover ratio based on cost of goods sold shows that for every one rupee invested in Fixed Assets good costing Rs. 2.22 have been sold.

Note: Total amount of fixed assets have been arrived at as below:

(*i*) Land and building	Rs. 1,50,000
(*ii*) Plant and machinery	Rs. 80,000
Total	Rs. 2,30,000

Illustration 13 :

Following items appear in the accounts of Operations Limited as on 31st December 1968:

	Rs.
Cash	48,600
Land and Building at Cost	8,00,000
Deposits and Payments in advance	62,000
Stock	3,72,000

Trade Creditors	4,05,750
General Reserve	1,00,000
Debtors	5,23,000
Bills receivables	22,600
Plant & machinery at Cost	
Less: Depreciation	5,44,000
Debentures Repayable 1979 (Secured)	2,50,000
Bank Overdraft	52,000
Equity shares of Re. 1 each	1,00,000
Profit and Loss Account balance	2,17,000
Proposed Equity Dividend for 1968 (net)	86,250
Trade Investments	20,000
Provision for Taxation	1,24,000
Dividend Reserve	1,40,000
Bills Payable	18,000
Net Sales for the year 1968	21,82,400
Net Profit the year 1968 before taxation and dividends	3,27,830

The value of all fixed assets reflect current price levels and adequate depreciation has been provided.

Your are required to arrange the above items in the form of financial statement to show the following accounting ratios:

(a) Return on Capital Employed, *(b)* Stock : Fixed Assets, *(c)* Current Assets: Current Liabilities, *(d)* Sales: Debtors and Receivable.

Operations Limited
Statement of Capital Employed as on 31st December 1966

	Rs.
Share Capital	10,00,000
General Reserve	1,00,000
Dividend Reserve	1,40,000
Profit and Loss Account	2,17,000
Share holder's funds	14,57,000
Debentures	2,50,000
Capital Employed	17.07,000

Statement Showing Investment of Funds

	Rs.	*Rs.*	*Rs.*
Fixed Assets:			
Land and Buildings		8,00,000	
Plant and Machinery		5,44,000	13,44,000
Trade Investments			20,000
Current Assets:			
Stock	3,72,800		
Trade Debtors	5,23,000		
Bill Receivables	22,600		
Deposits & payments in Advance	62,000		
Cash	48,600	10,29,000	
Less: Current Liabilities:			
Trade Creditors	4,05,750		
Bank Overdrafts	52,000		
Bill Payable	18,000		
Provision for Taxation	1,24,000		
Proposed Dividend	86,250	6,86,000	3,43,000
			17,07,000

Operating Results	
(i) Sales during the year 1966	21,82,400
(ii) Net Profit for the year before taxation and dividends	3,27,830

Calculation of Ratios :

(a) Return on Capital Employed :

$$= \frac{\text{Profit before interest}}{\text{Average Capital employed}} = \frac{\text{Rs. } 3{,}40{,}330}{16{,}07{,}000} \times 100 = 21.12\% \text{ (Approx.)}$$

Notes: **(1) Profit before tax and interest:**

Profit before taxation and dividend	3,27,830
Add: Interest on Debentures (assumed to be at **6%**)	12.500
Profit before tax interest and dividend	3,40,330

(2) Average Capital Employed:

Capital Employed on 31-12-1968	17,07,000
Less: 50% of net profit (Rs. 3,27,830-Rs.1,24,000)	1,00,000
	16,07,000

Due to non-availability of the capital employed at the beginning of the year, half of the profit during the year has been deducted from the amount of the capital employed at the year end to arrive at the figure of an average capital employed.

(b) Stock : Fixed Asset Ratio : $\frac{\text{Stock}}{\text{Fixed Assets}} \times 100$

$$= \frac{\text{Rs. } 3{,}72{,}800}{\text{Rs. } 13{,}44{,}000} \times 100 = 2.774 \times 100$$

$$= 27.74\% \text{ (Approx.)}$$

(c) Current Assets : Current Liabilities Ratio or Current Ratio :

$$= \frac{\text{Current Assets}}{\text{Current Liabilities}} = \frac{\text{Rs. } 10{,}29{,}000}{\text{Rs. } 6{,}86{,}000} = 1.5{:}1$$

(d) Sales : Debtors and Receivable Ratio :

$$= \frac{\text{Net Sales}}{\text{Debtors + Receivables}} \times 100$$

$$= \frac{\text{Rs. } 21{,}82{,}400}{\text{Rs. } 5{,}23{,}000 + \text{Rs. } 22{,}600} \times 100$$

$$= \frac{\text{Rs. } 21{,}82{,}400}{\text{Rs. } 5{,}45{,}600} \times 100 = 4 \times 100 = 400\%$$

Illustration 14 :

You are required to prepare a balance sheet in the suitable form for analytical purposes and calculate the following ratios:

(a) Working Capital Ratio.

(b) Proprietary Ratio.

(c) Debt-Equity Ratio.

(d) Fixed Assets Ratio.

Give your brief comments about the financial position of the company with reference to each of the above ratios. *(CAIIB)*

The following balances as at 31st March 1986 are extracted from the books of Patel Industries Private Limited:

	Dr. *Rs.*	*Cr.* *Rs.*
Equity Shares Capital		5,00,000
Preference Share Capital (10%)		2,50,000
Unclaimed Dividends		10,000
Proposed Dividends		50,000
Land and Buildings	7,00,000	
Plant and Machinery	10,25,000	
Vehicles	75,000	
Furniture and Fixtures	1,00,000	
Depreciation on Assets (up to 13-3-1986)		4,00,000

Bank Overdrafts (Unsecured)		3,00,000
Long-term Secured Loan from Bank		4,00,000
Fixed Deposits (repayable within one year)		5,00,000
Stock in Trade	6,00,000	
Sundry Debtors	2,50,000	
Cash on Hand	5,000	
Bank Balance	20,000	
Preliminary Expenses	50,000	
Profit and Loss Account		1,00,000
Provision for Taxation		1,40,000
Sundry Creditors		2,00,000
Investments in Government Securities	25,000	
(Trade Investment)	28,50,000	28,50,000

Solution :

Patel Industries Private Limited
Balance Sheet as at 31st March 1986

	Rs.	*Rs.*	*Rs.*
Fixed Assets:		7,00,000	
Land and Buildings			
Plant and Machinery		10,25,000	
Furniture and Fixtures		1,00,000	
Vehicles		75,000	
		19,00,000	
Less: Depreciation written of to date		4,00,000	15,00,000
Trade Investments			25,000
			15,25,000
Current Assets:			
Stock in trade		6,00,000	
Sundry Debtors		2,50,000	
Cash at Bank		20,000	
Cash on Hand		5,000	
		8,75,000	
(i) **Current Liabilities:**			
Sundry Creditors	2,00,000		
Unclaimed Dividends	10,000		
Bank Overdraft	3,00,000		
Fixed Deposits	5,00,000		
(Repayable within one year)	10,10,000		
(ii) **Provisions:**			
Proposed dividend	50,000		
Provision for Taxation	1,40,000		
	1,90,000	12,00,000	(3,25,000)

	Rs.	Rs.
Net Capital Employed :		12,00,000
Less: Long-term secured Loan from Bank		4,00,000
		8,00,000
(i) **10% Preference share capital**		2,50,000
(ii) **Equity Share holders' Net Worth**		
Equity Share Capital	5,00,000	
Reserves and Surplus	1,00,000	
	600000	
Preliminary Expenses	50,000	5,50,000
		8,00,000

(a) *Working Capital Ratio (Also called Current Ratio) =*

$$= \frac{\text{Current Assets}}{\text{Current Liabilities and Provisions}} = \frac{\text{Rs. } 8{,}75{,}000}{\text{Rs.} 12{,}00{,}000}$$

$= 0.73$

(b) *Proprietary Ratio* $= \frac{\text{Shareholders' Fund}}{\text{Total Tangible Assets}} \times 100$

$$= \frac{\text{Shareholder's Funds}}{\text{Fixed Assets + Current Assets}} \times 100$$

$$= \frac{8{,}00{,}000}{15{,}25{,}000 + 8{,}75{,}000} \times 100 = 33.33\%$$

(c) *Debt + Equity Ratio =*

$$= \frac{\text{Long Term Debts}}{\text{Shareholders Fund + Long Term Debts}}$$

$$= \frac{\text{Rs. } 4{,}00{,}000}{\text{Rs. } 8{,}00{,}000 + \text{Rs. } 4{,}00{,}000} \times 100 = .33$$

(d) *Fixed Assets Ratio =*

$$= \frac{\text{Fixed Assets (W.D.V)}}{\text{Shareholder's Fund + Long Term Debts}} = \frac{\text{Rs. } 15{,}00{,}000}{\text{Rs. } 12{,}00{,}000} = 1.25$$

Comments on the Financial Position of the Company

1. The working capital ratio indicates in rough fashion whether or not the company will be able to meet its short term obligations without any financial strain. Normally, this ratio should be about 2:1 *i.e.*, current assets should be approximately 2 times the current liabilities. The working capital ratio of Patel Industries is only 0.73. This ratio indicates a very bad liquidity position. The situation looks even worse if we take into account the fact that:

(i) The company has a negative working capital; and

(ii) Stock-in-trade is the main component of current assets.

It is quite possible that a part of stock-in-trade consists of slow-selling items.

2. Proprietary ratio is calculated to indicate the owners' stake in the business. In general the closer this ratio approximates 100% the stronger the financial position of the enterprise. It would indicate an alarming state of affairs if this ratio is less than 50%. This would mean the proprietors' funds are less than those of creditors (both long term and short term). A big loss will mean that, probably, creditors have to bear a part of such loss. The proprietary ratio of Patel Industries is 33.33%. This indicates that company's position is not very good. The main reason for this is the utilisation of large part of short term funds for financing tangible assets of the company.

3. Debt-equity ratio is calculated to find out the amount of capital supplied to the firm by the outsiders and that by the owners. A very high debt-equity ratio indicates a risky position — a too much dependence on long term borrowing. However, a very low ratio indicates too much conservatism on the part of management. At present it is believed that this ratio should be — .67 to .75. In other words, 67% to 75% of the long term funds required by the firm can be raised by way of loans. The debt equity ratio of Patel Industries is 33. This ratio shows too much conservatism on the part of management.

4. Fixed Assets Ratio is calculated to find out the extent to which fixed assets are financed out of long term funds. One of the cardinal principles of financial management is that long-term requirements should be financed totally out of long term funds. In other words fixed assets ratio should not be more than 1. If this ratio is more than 1, it means that some short term funds are used for long term purpose. Such a state of affairs is pointer of creditors press for payments. From this point of view fixed asset ratio of 1.25 indicates that company has been injudicious in financing its long term requirements.

Conclusion

A very bad working capital ratio, bad fixed assets ratio, a conservative debt-equity ratio and a low proprietary ratio indicate that company's short term financial position is bad. However, its long term position is not very bad, if it can overcome its immediate financial difficulties. The company should acquire some long term funds, say about Rs. 5,00,000 in order to improve its financial position. Probably, it should convert the short term fixed deposits into secured debentures, maintaining the same rate of interest. If that is not possible the company should raise loans (low debt-equity ratio indicates that company should take loans rather than issue shares). Such an action will result in financing long term requirements totally out of long term funds.

Limitations of Accounting Ratios

Many purpose are served by accounting ratios. All these purposes may be regarded as the contribution made by the ratios towards financial aspects of the concern. They are very helpful to outsiders as well as for internal management. They provide simplicity to the complex accounting information presented by the financial statements. Moreover, they establish inter-relationship between various accounting figures. Sound financial evaluation of an enterprise, it's perhaps impossible without studying the accounting ratios on the basis of the financial statements of that enterprise. Ratio analysis is very helpful to internal management to discharge the basics managerial functions. Ratios asset management in planning, policy marking and controlling the activities. They are very helpful in establishing the standard costing system and the budgetary control system in almost all the aspects of the business. For example, profitability, short term and long term solvency, capital structure etc. Ratios also facilitate routine checking. For all these reasons, many concerns maintain ratio registers to record important ratios for every year.

With this background, let us note the limitations of accounting ratios:

(1) Ratios provide only guidelines to the management. They are only the means. However, they scratch the surfaces and raise questions. This limitation of ratios may force the management to have detailed investigation of the situation under question.

(2) A single accounting ratio is not useful, at all, unless it is studied with other accounting ratios. This limitation of ratios necessitates inter-firm and intra-firm comparisons.

(3) They are based only on the quantitative information. Hence, qualitative information (*i.e.*, character, managerial ability, etc.) puts limit on the ratios.

(4) Ratios are subject to arithmetical accuracy of the financial statements. Moreover, financial statements also include estimated date like provision for depreciation, provision for bad and doubtful debts, etc. hence, results revealed by ratios are subject to such estimates.

(5) Ratios are computed on the basis of financial statements which are historical in nature.

(6) Knowledge of ratios only is meaningless unless it is also found out how it is made up.

(7) Lack of homogeneity of data, personal judgment lack of consistency, etc. Are the factors which limits the conclusions to be derived on the basis of accounting ratios.

Ready Reference

To conclude the chapter, important accounting ratios with their formulation are reproduced below for ready reference.

(A) For Short Term Financial Condition :

(1) Current Assets $= \dfrac{\text{Current Assets}}{\text{Current Liabilities}}$

(2) Liquid Assets $= \dfrac{\text{Liquid Assets}}{\text{Liquid Liabilities}}$

(3) Cost of Goods Sold $= \dfrac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$

(4) Sundry Debtors – Bills Receivable

$$= \frac{\text{Sundry Debtors + Bill Receivables}}{\text{Net Sales}} \times 360$$

Notes: Ratio No.(3) and (4) shows conversion of inventory (Ratio No. 3) and of Debtors (Ratio No. 4) into cash.

(B) For Long Term Financial Conditions :

(1) Outsider's Fund $= \dfrac{\text{Outsider's Funds}}{\text{Shareholders' Funds}}$

(2) Net Profit before tax and fixed interest charges

$$= \frac{\text{Net Profit before tax and fixed interest charges}}{\text{Fixed Interest Charges}}$$

(3) Proprietor's Funds $= \dfrac{\text{Proprietor's Funds}}{\text{Total Assets}} \times 100$

(4) Ratio of Fixed Assets to Proprietor's Funds

$$= \frac{\text{Fixed Assets}}{\text{Proprietor's Funds}}$$

(C) For Profitability (General and Overall Profitability) :

(1) Gross Profit Ratio $= \dfrac{\text{Gross Profit}}{\text{Shareholders' Funds}}$

(2) Net Profit Ratio $= \dfrac{\text{Net Profit}}{\text{Net Sales}} \times 100$

(3) Return on shareholder's Investments

$$= \frac{\text{Net Profit after tax and interest}}{\text{Shareholder's Funds}}$$

(4) Return on Net Capital Employed

$$= \frac{\text{Net Profit before taxes and interest}}{\text{Average Capital Employed}} \times 100$$

(5) Return on Gross Capital Employed

$$= \frac{\text{Net Profit before taxes and interest}}{\text{Gross Capital Employed}} \times 100$$

(6) Capital Turnover $= \dfrac{\text{Net Sales}}{\text{Net Capital Employed}}$

Notes: Return on Capital (Net) employed is a result of the following two ratios.

Return on Capital employed = Net Profit Ratio × Capital Turnover Ratio.

$$= \frac{\text{Net Sales}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Capital Employed}}$$

(7) Total Assets Turnover Ratio :

$$= \frac{\text{Net Profit before taxes and interest}}{\text{Total Assets}}$$

(8) Fixed Assets Turnover Ratio : $= \dfrac{\text{Cost of the Good Sold}}{\text{Fixed Assets}}$

(9) Return on Equity Share Capital :

$$= \frac{\text{Net Profit} - \text{Dividend due to Preference Shareholders}}{\text{Equity Capital}}$$

Some times $= \dfrac{\text{Net Profit} - \text{Dividend due to Preference Shareholders}}{\text{Equity Share Capital} + \text{Reserves}}$

(10) Earning for Equity Share :

$$= \frac{\text{Net Profit} - \text{Dividend due to Preferences Shareholders}}{\text{Number of Equity Shares}}$$

(11) Profit Volume Ratio (from Costing viewpoint) :

$$= \frac{\text{Contribution}}{\text{Sales}} \times 100$$

(12) Operating Ratio :

$$= \frac{\text{Cost of Goods Sold} + \text{Operating Expenses}}{\text{Net Sales}} \times 100$$

(13) Operating Profit Ratio $= \dfrac{\text{Operating Profit}}{\text{Net Sales}} \times 100$

(14) Expense Ratio

$$= \frac{\text{Each Individual Operating Expenses}}{\text{Net Sales}} \times 100$$

(15) Net Profit to Fixed Assets $= \frac{\text{Net Profit}}{\text{FixedAssets}} \times 100$

(D) For Capital Structure:

(1) Capital Gearing Ratio $= \frac{\text{Equity Share Capital}}{\text{Fixed Income Bearing Securities}}$

(2) Ratio of Reserves to Equity Capital $= \frac{\text{Revenue Reserves}}{\text{Equity Capital}}$

(3) Total Investments to Long Term Liabilities :

$$= \frac{\text{Holding of Proprietors + Long Term Liabilities}}{\text{Long Term Liabilities}}$$

(4) Fixed Assets to Funded Debt $= \frac{\text{Fixed Assets}}{\text{Fund Debts}}$

Illustration 15 :

Find out the values of Current Assets and Current Liabilities from the following information :

Current Ratio = 2.5
Working Capital = 2,00,000

Solution:

Assume WC = CA – CL

= Working Capital = Current Assets – Current Liabilities :

or

$$= WC = \frac{CA}{CL}$$

Therefore Current ratio $= \frac{CA}{CL}$ or CA : CL

Assume Current asset as 1. (It is because of non-availability of any value)

CR $= \frac{CA}{CL} = 2.5 = \frac{CA}{CL} = \therefore CA = 2.5 \times 1 = \mathbf{2.5}$

∴ Working Capital Ratio = Current Asset Ratio – Current Liabilities:

1.5 = 2.5 – 1

For 1.5 Working Capital Ratio, the value of W.C. = 2,00,000

For 1 Working Capital Ratio $= \frac{2,00,000}{1.5}$

For 2.5 Current Ratio = $\frac{2,00,000}{1.5} \times 2.5 = 3,33,333$

For 1.5 Working Capital Ratio, the value of W.C. = 2,00,000

For 1 Current Ratio = $\frac{2,00,000}{1.5} = \mathbf{1,33,333}$

∴ Current Assets = Rs. 3,33,333
Current Liabilities = Rs. 1,33,333

Illustration 16 :

Balance Sheet of M/s. Ramson Ltd.

	Rs.		*Rs.*
Equity Capital	10,00,000	Fixed Assets	18,00,000
Pref. Capital (8%)	4,00,000	Current Assets	12,00,000
Debentures (10%)	3,00,000		
Reserves & Surplus	5,00,000		
Current Liabilities	8,00,000		
	30,00,000		30,00,000

Calculate Debt Equity Ratio and Debt Ratio.

$$\text{Debt Equity Ratio} = \frac{\text{Outsiders' Funds}}{\text{Shareholders' Equity + Pref. Shares + Res. \& Surplus}}$$

$$= \{\frac{3,00,000}{10,00,000 + 4,00,000 + 5,00,000}$$

$$= \frac{3,00,000}{19,00,000} = 1:63 \quad \therefore 1:63$$

$$\text{Debt Ratio} = \frac{\text{Total Liabilities to outsiders}}{\text{Total Assets}}$$

$$= \frac{3,00,000 + 8,00,000}{30,00,000} = \frac{11,00,000}{30,00,000} = \mathbf{1:2.7}$$

Illustration 17 :

Calculate the Operating Profit Ratio from the following :

	Rs.
Sales	15,00,000
Sales Returns	2,00,000
Cost of goods sold	9,00,000
Administrative Exps.	1,00,000
Selling Exps.	50,000

Solution :

$$\text{Operating Profit Ratio} = \frac{\text{Operating Profit}}{\text{Net Sales}} \times 100$$

$$\begin{aligned}\text{Operating Profit} &= \text{Net Sales} - \text{Cost of goods sold} - \\ &\quad \text{Admn. Exps.} - \text{Selling Exps.} \\ &= 13{,}00{,}000 - 9{,}00{,}000 - 1{,}00{,}000 - 50{,}000 \\ &= 2{,}50{,}000\end{aligned}$$

$$\begin{aligned}\text{Operating Profit Ratio} &= \frac{2{,}50{,}000}{(15{,}00{,}000 - 2{,}00{,}000)} \times 100 \\ &= \frac{2{,}50{,}000}{13{,}00{,}000} \times 100 \\ &= \mathbf{19.23\%}\end{aligned}$$

Illustration 18 :

Calculate Return on Equity from the following :

	Rs.
1,00,000 Equity shares of Rs. 10.00 each Rs. 8.00 paid up	8,00,000
10% 10,000 Preference Shares of Rs. 10 each	1,00,000
Profit before Tax	90,000
Interest charges	20,000
Tax rate applicable	50%

$$\text{Return on Equity} = \frac{\text{Net Profit}}{\text{Equity Capital}} \times 100$$

Calculations of Net Profit:

	Rs.
Profit before Interest & Tax	90,000
Less: Interest	20,000
Profit before Tax	70,000
Less: Tax @ 50%	35,000
Profit after Tax	35,000
Less: Preference dividend $\frac{10}{100} \times 1{,}00{,}000 =$	10,000
Net Profit	25,000

$$\text{Return on Equity} = \frac{\text{Net Profit}}{\text{Equity Capital}} = \frac{25{,}000}{8{,}00{,}000} \times 100$$

$$= 3.12\%$$

Illustration 19 :

From the following calculate Average collection period :

	Rs.
Debtors	40,000
Sales	3,00,000
Cash Sales	30,000
Bills Receivables	10,000
Resure for bad and doubtful debts	5,000
Sales Returns	6,000

Solution :

$$\text{Average Collection period} = \frac{\text{Debtors + Bills Receivables}}{\text{Credit Sales per day}}$$

$$\text{Credit Sales per day} = \frac{\text{Net Cr. Sales}}{\text{No. of working days}}$$

$$\text{CSPD} = \frac{3{,}00{,}000 - 30{,}000 - 6{,}000}{365} = \frac{2{,}64{,}000}{365} = \text{Rs. } 723/\text{-}$$

$$\text{Average Collection period} = \frac{40{,}000 + 10{,}000}{723} = \frac{50{,}000}{723} = \mathbf{69} \text{ days}$$

Illustration 20 :

Raghuvir Ltd. provides the following information :

	Rs.
Purchases	3,00,000
Cash Purchases	40,000
Purchase Returns	5,000
Creditors'	50,000
Bills Payable	30,000

Solution:

$$\textbf{Creditors' Turnover Ratio} = \frac{\text{Creditors + Bills Payable}}{\text{Credit Purchases}}$$

$$\begin{aligned}\text{Credit Purchases} &= \textbf{Purchases – Cash Purchases – Purchase Returns}\\ &= \mathbf{3{,}00{,}000 - 40{,}000 - 5{,}000}\\ &= \mathbf{2{,}55{,}000}\end{aligned}$$

$$\text{Creditors' Turnover Ratio} = \frac{50{,}000 + 30{,}000}{2{,}55{,}000} \times 365$$

Alternatively

$$\text{Creditors Turnover Ratio} = \frac{\text{Credit Purchases}}{\text{Average Accounts Payable}}$$

$$= \frac{\mathbf{2{,}55{,}000}}{\mathbf{30{,}000}} = \mathbf{8.5 \text{ times}}$$

EXERCISES

1. From the following details prepare a balance sheet of the Company.

Share Capital	Rs. 2,20,000
6% Debenture	Rs. 1,20,000
Opening stock 87.5% of closing stock	Rs. 1,40,000
Gross profit margin 20% on sales	
Turnover of average Stock 8 times.	
Turnover of total assets 2.5 times.	
Quick Ratio 1.2:1.	
Proprietary ratio (P. F/Total assets) 0.6:1	
Average collection period one month.	

2. Selected accounting ratios of two companies in the consumer goods industry are given below.

Ratios	*Company A*	*Company B*
Current Ratio	2.4	2.8
Acid Test Ratio	0.9	0.3
Capital Gearing Ratio $\frac{\text{Equity}}{\text{Debt}}$	2.0	0.5
Return on Total Investment	18%	8%
Gross Profit Ratio	25%	15%
Net Profit Ratio	4%	4%
Investment Turnover	4.5 times	2 times

Comment on the relative performance and financial condition of the two companies.

3. The following data has been taken from the balance sheets of three companies.

	Company "G" Rs.	*Company "H" Rs.*	*Company "I" Rs.*
Cash	20,000	40,000	1,00,000
Sundry Debtors	1,60,000	1,60,000	4,00,000
Stock in Hand	1,20,000	2,00,000	6,00,000
Total Current Assets	3,00,000	4,00,000	11,00,000
Total Current Liabilities	1,00,000	1,50,000	8,00,000
Working Capital	2,00,000	2,50,000	3,00,000

Comment on the comparative liquidity.

4. What conclusion would you draw from the following ratios with regards to the financial health of a firm?

	1989	*1990*
(a) Ratio between Current Liabilities and Current Assets	1:2.1	1:1.7
(b) Ratio between Current		

Liabilities and Quick Assets	1:1.1	1:1.2
(c) Ratio of Gross Profit on Sales	1:4.5	1:3.5
(d) Ratio of Net Profit on Sales	1:6.5	1:8.5

5. Calculate the appropriate ratios from the following data.

Balance sheet of Ashwini Ltd., on 31-3-1993

Liabilities	*Rs.*	*Rs.*	*Assets*
Equity Shares	50,000	Fixed Assets	1,80,000
7% Pref. Shares	10,000	**Less:** Depreciation	50,000
Reserves & Surplus	40,000		1,30,000
6% Mortgage Debentures	70,000	Govt. Security	15,000
Creditors	6,000	Debtors	20,000
Bills Payable	10,000	Stock	30,000
O.S. Expenses	1,000	Cash	5,000
Tax Provision	13,000		
	2,00,000		2,00,000

Other information:

(a) Net Sales	Rs. 3,00,000
(b) Cost of Goods sold	Rs. 2,58,000
(c) Net income before tax	20,000
(d) Net income after tax	10,000

STUDY QUESTIONS

Part - A

(2 marks question — Answer in 4 lines each)

1. What do you mean by Revenue Statement Ratio?
2. What is Gross Profit Ratio?
3. What is Operating Ratio?
4. What is Expenses Ratio?
5. What is Net Profit Ratio?
6. What do you mean by Combined Ratio?
7. What do you understand by Turnover to Debtors' Ratio?
8. Give meaning of : (1) Net Profit to Total Assets Ratio. (2) Return on Proprietor's Funds (3) Earnings per Ratio. (4) Price-Earning Ratio. (5) Sales to Debtors' Ratio. (6) Sales to Stock Ratio. (7) Efficiency Ratio. (8) Activity Ratio. (Answer any one).
9. How do you calculate "Stock Turnover Ratio"?
10. Total current assets are Rs. 1,20,000 Current Ratio is 2. Fixed assets are 60% of capital, calculate capital and fixed assets.
11. Stock turnover of 5 times. Average stock is Rs. 60,000. Rate of gross profit on sales is 20%, calculate sales and gross profit.
12. What are solvency ratios?
13. What is "Return on capital employed"?

14. State components of liquid ratio.
15. Gross profit of a firm is Rs. 60,000 operating expenses are Rs. 50,000. Taxes Rs. 10,000, owner's fund Rs. 2,50,000. Calculate return on proprietor's fund.
16. Given current ratio 2.5 working capital is Rs. 60,000. Calculate the amount of current assets and liabilities.
17. Current ratio 2.5. Acid test ratio 1.5. Stock Rs. 15,000. Calculate net working capital.
18. State the utility of operating expenses ratio.
19. State the key steps involved in ratio analysis.
20. Current liabilities of the company are Rs. 30,00,000. Its current ratio is 3:1 and quick ratio 1:1. Calculate value of stock-in-trade.
21. What is Activity Ratio?
22. State the significance of Current Ratio.
23. Closing Stock of X Ltd., is Rs. 2,00,000. Total liquid assets are Rs. 1,00,000. Liquid Ratio is 1:1. Find out working capital.
24. Cost of goods sold is Rs. 1,60,000. Stock turnover 5 times. Closing stock is Rs. 4,000. More than opening stock calculate opening stock.
25. Total current liabilities are Rs. 80000. Current ratio 2.5 :1. Acid test ratio 1.5: 1. Total current assets include stock, debtors, and cash only. Cash is 2/3 of debtors. Calculate debtors.

Part - B

(8 marks questions —Answer in 30 lines each)

1. Give an analysis note on Revenue Statement Ratios.
2. Give an analytical note on Combine Ratio.
3. Current liability of a company is Rs. 30,000. Its current ratio is 3:1 and quick ratio is 1:1. Calculate the value of stock-in-trade.
4. State any four accounting ratios and tell their utility.
5. Analyse the relationship between liquidity, solvency and profitability.
6. "Ratios are mechanical and incomplete" - Analyse.
7. What are turn-over ratios? Analyse their utility.
8. Analyse the utility of the following ratios (Any two). (1) Current ratio. (2) Liquid ratio (3) Debtors' Turnover ratio (4) Creditors' Turnover ratio (5) Stock Turnover ratio. (6) Proprietary ratio.

Part - C

(Questions —Answer in 3 pages each)

1. What are important profitability ratios? How are they worked out? Explain and illustrate.
2. State the important combined ratios. How are they computed? Explain and illustrate.
3. Describe any five accounting ratio and briefly explain their application.
4. Explain the role of ratios analysis in interpretation of financial statements. State the limitations.