Principles of Management

Overall objectives

- *To develop an understanding of different functional areas of management*
- *To understand the functions and duties an individual should perform in an organisation.*

Topics to be covered

Module I *Management Concepts*

Module II *Personnel Management*

Module III *Production management*

Module IV *Financial Management*

Module V ***Sales and Marketing Management***

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Topics to be covered

Module V (12 hours)

Sales and Marketing Management: Sales management-Concept- Functions of sales department- Duties of sales engineer-Selling concept and Marketing concept

Marketing-Definition and principles of marketing- Marketing management and its functions

Sales forecasting- Pricing- Advertising- Sales promotion-Channels of distribution- Market research.

Sales and Marketing management

5.1 Sales management

Sales management can be defined as the art of meeting the sales goals of an organization through effective planning, controlling, budgeting and leadership. Sales management helps the organization to achieve the sales targets efficiently.

5.1.1 Objectives of sales management

Top management sets the overall objectives of an organization, and delegates the same to the marketing department. The marketing department then delegates sufficient authority to the sales management to achieve these objectives. Sales manager provides valuable inputs to the top management like sales and market potentials, competitive developments, general market conditions, changing needs and preferences of the customers and so on. From the company viewpoint, there are three general objectives of the sales management.

Objectives of sales management

1. ***Achievement of sufficient sales volume*** - Once the top management, in consultation with the sales and marketing department sets the target sales volumes for a specific period, say a financial year, it is the responsibility of the sales management to achieve these targets. Sales targets are set for both sales territories and individual sales persons to achieve the target sales volumes.

2. ***Contributing to desirable profits***

a) Sales revenues - cost of goods sold = gross margin

b) Gross margin - expenses = Net profits

Sales revenues, gross margins and expenses are affected by the efficiency level of sales management, and these are the major determinants of net profits. More the sale volumes, more the economies of scale and lower the cost of production.

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Objectives of sales management

3. ***Ensuring continuous growth for the company –*** This is to obtain an optimum relationship between sales volumes, cost of production, gross margins and expenses. Obtaining optimum sales volumes, gross margin and expenses is the direct responsibility of sales management. A coordinated effort of sales management with other functions of the organization can bring down the cost of goods also.

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Functions of sales department

1. ***Sales planning*** - Sales management requires effective planning to achieve the sales objectives. What are the sufficient sales volumes and what profits can be generated come under the scope of sales planning.

The first step in sales planning is to determine how much ***volumes*** can be sold in a particular time period. This is done by preparing sales forecasts. The goals and objectives of the organization are then set on the basis of these forecasts.

How much expenses should be made to achieve the desired sales volumes requires the preparation of ***sales budget***. The sales budget is a projection of what a given sales programme means in terms of sales volume, selling expenses, and net profits.

To be successful, ***forecasts*** should be quantified and justifiable, and plans should be reviewed regularly to check deviations and to understand the reasons and implications of such deviations.

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Functions of sales department

Plans should have sufficient in-built flexibility to respond or permit adaptation to changes in environmental factors both internal and external to the company.

Sales management is also responsible for setting the policies, procedures and rules for conducting sales and managing the sales force.

2. ***Organizing the sales effort*** - This involves identification and classification of required sales activities, grouping of activities necessary to attain objectives, and assignment of each grouping to a manager with the authority necessary to supervise it.

Designing the organization structure of sales department is one of the most important functions of sales management. This involves determining the power and authority of various management layers, deciding how many subordinates a supervisor can manage, and delegation of authority.

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Functions of sales department

3. ***Coordination with other departments*** - Sales department has to coordinate with other departments of the organization to achieve the overall organizational objectives.

Firstly, sales forecasts become the basis of ***production planning***. The decisions like increasing the production capacity are also dependent upon the expected sales figures in the long run. Which product is to be produced and in what quantity is again based on estimates of the sales department.

Personnel department requires active cooperation from the sales department. How much line and supporting staff is required depends upon the objectives of sales management. Similarly, sales volumes have a direct impact on the production staff. More the sales volume more is the production staff required. Hence, personnel department in an organization can never plan without inputs from the sales department.

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Functions of sales department

Financial planning of a company is based on sales volumes. The present and expected sales volumes, payment terms with the distributors, salaries etc., all are important factors for financial planning.

Sales department provides inputs to the ***R&D department*** for altering a present product or developing a new product according to the customer's needs.

Sales department also has to coordinate with managers of other marketing activities like advertising, sales promotion and market research.

4. ***Appointing and training sales personnel*** - People are the very essence of the sales force. Their recruitment and training is most important function of sales management. Recruitments should be made clearly and consciously, in response to current and future needs of the sales plan.

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Functions of sales department

5. ***Motivating sales persons –*** Sales persons need consistent motivational help to reach and maintain acceptable performance levels. It is the duty of the sales management to ensure that the sales force has the desired levels of motivation.

6. ***Achieving sales targets -*** To achieve the targets in the sales plan is the prime duty of sales management. All other departments of the company are in a way assisting the sales department to achieve the overall organizational goals. A bad performance by the sales department means bad overall performance by the organization.

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Marketing management

Marketing management is the process of analysis, planning, implementation and control of programmes designed to bring about desired exchanges with target markets for the purpose of achieving objectives of the organization.

Analysis - Detailed study of the gathered information regarding market, competitors product, target market (targeted customers), political issues etc.

Planning - Choosing the marketing plan suitable for the market, product pricing, advertisement plans etc.

Implementation - Putting the plan into action performing the marketing tasks according to predefined schedule.

Controlling - Results are measured, results are compared and adjustments are made.

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Marketing management philosophies

The marketing concept is the philosophy that firms should analyze the needs of their customers and then make decisions to satisfy those needs, better than the competition.

1. ***The production concept*** - The production concept holds that consumers will favour products that are available and highly affordable, and that management should therefore focus on improving production and distribution efficiency. At the time, the production concept worked fairly well because the goods that were produced were largely those of basic necessity and there was a relatively high level of unfulfilled demand.

2. ***The product concept*** - Another important concept is the product concept, holds that consumers will favour products that offer the most quality, performance and innovative features, and that an organization should thus devote energy to making continuous product improvements.

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Marketing management philosophies

3. ***The selling concept*** - By the early 1930's however, mass production had become commonplace, competition had increased, and there was little unfulfilled demand. Many organizations follow the selling concept, which holds that consumers will not buy enough of the organization's products unless it undertakes a large-scale selling and promotion effort. This sort of customer attitude is mostly found for unsought goods like surgery, insurance, videophone etc.

4. ***The marketing concept*** - This is a business philosophy that challenges the above three business orientations. Consumer oriented marketing has rise to the new concept in business known as '*marketing concept'*. The marketing concept emphasizes the determination of the requirements of potential customers & supplying products to satisfy the requirements. Marketing should be viewed as integrated process of identification, assessment and satisfaction of human wants. In other words, product is developed and produced to satisfy the needs of the customers.

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Marketing management philosophies

5. ***The societal marketing concept*** - The societal marketing concept holds that the organization should determine the needs, wants and interests of target markets. It should then deliver the desired satisfactions more effectively and efficiently than competitors in a way that maintains or improves the consumer's and the society's well-being. The societal marketing concept is the newest of the five marketing management philosophies.

Marketing management

Functions of marketing management

Most organizations have a marketing division responsible for marketing strategy, advertising, researching, promoting, conducting customer surveys, branding, public relations and creating of corporate style.

All these responsibilities can be gathered in several main functions of the marketing department. These functions are :

1. ***Market research***
2. ***Sales forecasting***
3. ***Pricing***
4. ***Choosing distribution channel***
5. ***Selling***
6. ***Advertising***
7. ***Sales promotion***
8. ***Servicing***

Market research

Market research is a process of gathering, recording and analyzing of information such as nature of demand, nature of competition, methods of marketing, sales trend and other aspects starting from the stage of production and to the point where they get consumed.

Objectives of market research

1. ***Reduction of risk –*** Market research helps to have information about customer's preferences, prevailing prices of competitors' product, market trend etc. These information forms the basis for planning, selling and advertising thereby reducing risk involved in decision making.
2. ***Production of new items -*** Valuable information about customer habits and need helps in designing new products.
3. ***Helps to formulate marketing plans -*** Market research helps in the formulation of all marketing plans, policies, programmes and procedures.

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Market research

4. ***Customer's satisfaction and profit -*** Having gathered information about customer needs, the information can be used to produce products satisfying the needs of customer.
5. ***Planned production -*** Market research helps in determining the demand of the product.
6. ***Discovery of potential markets -*** Through market research, potential areas can be identified.
7. ***Minimization of cost -*** Market research can be used to reduce all marketing costs, advertising and distribution costs.

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Benefits of Market Research

1. Market research helps to know who and where the customer is and what he wants, the sale trend and market potential.
2. Market research helps to know the defects in the product and reason of resistance of customers and then to rectify them in future production.
3. Market research helps to study the distribution channel and its effectiveness.
4. Market research tells the future of existing products and the products yet to be introduced.
5. Market research safeguards the company against unforeseen changes.

Limitations of market research

1. The conclusions drawn upon by using market research are not very accurate.
2. The results of market research are very vague as market research is carried out on consumers, suppliers, intermediaries, etc. who are humans.
3. Market research is not a complete solution to any marketing issue as there are many dominant variables between research conclusions and market response.
4. Huge cost is involved in market research as collection and processing of data can be costly.

Data types and sources for market research

1. ***Primary data-*** Primary data is the data which is collected specially for the purpose of study. It is collected for addressing the problem at hand. Thus, primary data is original data collected by researcher first hand. Primary data can be obtained by communication or by observation.

2. ***Secondary data -*** Secondary data is the data that have been already collected by and readily available from other sources. Such data are cheaper and more quickly obtainable than the primary data and also may be available when primary data can not be obtained at all.

Secondary data may be internal to the firm, such as sales invoices and warranty cards, or may be external to the firm such as published data or commercially available data. The government census is a valuable source of secondary data.

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Steps involved market research

1. ***Identification of the market research problem -*** The first step in market research is the identification of market research problem; the reason for which the research is being conducted or the purpose of the study. The objective of the research should be defined clearly.

2. ***Determining the information needed and sources followed by collection –***The next step is to determine the sources of data to be used. The researcher has to decide whether to go for primary data or secondary data. Sometimes a combination of both is used.

3. ***Analyzing and interpreting the information -*** Once the data is collected, it is then verified and analyzed. Appropriately analyzed data is then used in decision making process.

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Steps involved market research

4. ***Preparing and presenting the report followed by follow up and action* -** Once the data is analyzed, it is then documented in a written report. The report defines the problem, specifies the possible alternatives and a detailed analysis of all the alternatives. Various statistical tools such as bar graphs, pie diagrams, tables, etc are used to present the data.

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Market Research Techniques

1. ***Desk research* -** The data collected by the company in the past or collected by outside sources for example government agencies or trade associations are made use of, for this type of technique of market research.
2. ***Postal questionnaire* -** In this type of market research technique, carefully prepared questionnaire are posted to a selected sample of people for collecting specific data from them.
3. ***Telephonic interviews* -** Telephonic interviews are conducted with a selected sample of people for collecting specific data from them.
4. ***Personal interviews* -** Personal interviews are conducted with a selected sample of people for collecting specific data from them.
5. ***Observational method* -** The market research personnel carefully observes others and collects desired information. This gives a more accurate picture of customers' usage habits and shopping patterns.

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Market Research Techniques

6. ***Statistical method*** **-** Statistical method make use of large pre-collected data. Bar chart, frequency distribution curve, frequency polygon and the concepts of mean, median, and standard deviation are used to analyze the collected data.
7. ***Field trials*** **-** Placing a new product in selected stores to test customer response under real-life selling conditions can help to make product modifications, adjust prices or improve packaging.

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Marketing versus sales

Marketing activity finds out the needs of customers so as to deliver the company's products to the customers more effectively and efficiently than its competitors
i.e., any activity which facilitates selling is called marketing.

Selling activity is concerned with the sales of the company's product or selling activity concentrates on pushing the products to the customer whereby focuses on the needs(targets)set by the seller.

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Sales forecasting

Sales forecasting is the prediction of the future sales of a particular product over a specific period of time based on past performance of the product, consumer spending patterns etc.

The making of a proper sales forecast requires assessment of two sets of factors.
1. The outside uncontrollable forces which are likely to influence the company's sale, such as the weather, government activity and competitive behavior.
2. The internal marketing methods or practices of the firm that is likely to affect its sales, such as product, quality, price, advertising, distributing and service.

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Purpose (or need) of sales forecasting

1. It determines the volume of production and the production rate
2. It forms basis for production budget, labour budget, material budget, etc
3. It suggests the need for plant expansion.
4. It emphasizes the need for product research & development
5. It suggests the need for changes in production methods.
6. It helps establishing pricing policies.
7. It helps deciding the extent of advertising, product distribution, etc

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Limitations of sales forecasting

1. ***Lack of efficient and experienced forecasters* -** Success of sales forecasts depends upon the ability and experience of forecasters. If the forecasters are inefficient and inexperienced, sales forecasts prepared by them may be wrong.
2. ***Lack of sales history* -** Sales forecasts are generally based upon past sales. The task of sales forecasting becomes difficult in case of new product because in this case, past data are not available.
3. ***Change in consumers' needs, fashion and style etc.* -** Demand of a product depends upon the needs, fashion and style etc., of consumers which keep on changing. Therefore, it is very difficult to forecast the demand of a new product.
4. ***Complex psychology of consumers* -** Demand of a product depends to some extent, the psychology of consumers also, which is very difficult to study. It is not easy for a consumer to tell in advance the things that he would like to purchase.

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Essentials of a good sale forecasting system

1. ***Simplicity* -** The method followed for sales forecasts should be simple. If it is complicated, the person responsible for sales forecasts will not take interest in hiswork and sales forecasts may be wrong.
2. ***Accuracy* -** As sales forecasts are the base of marketing planning, these should be accurate and reliable so that they may help in preparing effective marketing plans and programmes.
3. ***Availability* -** The objects and scope of sale forecasting are determined according to the availability of required data. Sales forecasts can not be prepared in time if the required data are not easily available.
4. ***Stability* -** Sales forecasts should be so prepared that there should be no scope of changes, or the possibility of such changes will be minimum so that the marketing plan prepared on the basis of these data may be relied upon.
5. ***Economy* -** The method followed for preparing sales forecasts should be economical and there should be minimum involvement of time and labour.

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Steps in sale forecasting

1. ***Setting goals for sale forecasting*** - Identifying the need for forecast is the first step in the forecasting process.
2. ***Gathering data*** **–** Data need for the sale forecast is collected from various sources such as sales force, previous sale records etc. This step also involves identifying competitor's sales and estimating their sales.
3. ***Analysis of data*** - The data do not always 'speak for themselves' or if they do, it is sometimes hard to know what they are saying. Understanding data collected and how to use these data form the basis for good forecasts.
4. ***Choosing the method of forecasting*** - Different forecasting methods are appropriate under different circumstances. If the environment has sufficient quantitative data and the environment is stable, then a variety of quantitative analytical tools can be used. If large changes are anticipated, historical data will need to be augmented with causal models and expert analyses.

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Steps in sale forecasting

5. ***Forecasting*** **–** In this step, a forecast is made using the chosen forecasting method.
6. ***Evaluation of outcomes of forecasting*** **–** Results of the sales forecast is evaluated to identify the effectiveness of the forecast made.

Requirements of sales forecast

1. A sales forecast should be reasonably accurate.
2. Simple and easy to understand.
3. It should be economical.

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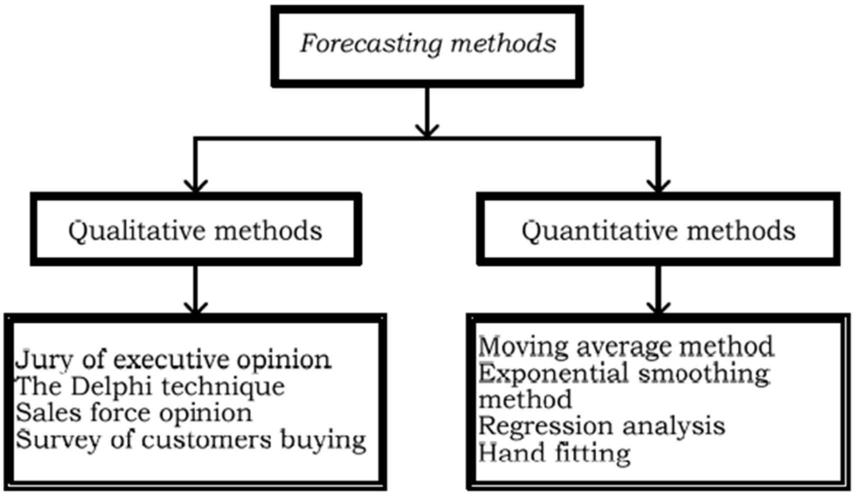
Sale forecasting methods



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1. *Opinion and judgmental methods or Qualitative methods*

a) ***Jury of executive opinion*** **–**The views of executives or experts from sales, production, finance, purchasing, and administration are averaged to generate a forecast about future sales as they are well informed about the company's market position, capabilities, competition and market trend.

b) ***Delphi approach*** – In this method, a panel of experts is asked to respond to a series of questionnaires. The responses are tabulated and opinions of the entire group are made known to each of the other panel members so that they may revise their previous forecast response. The process continues until some degree of consensus is achieved.

c) ***Sales force opinion*** **–** In sales force opinion method, the individual sales personnel forecast sales for their territories; then individual forecasts are combined and modified, as management thinks necessary, to form the company sales forecast.

d) ***Survey of customers buying*** **–** In this method, market surveys are conducted regarding specific consumer purchases. Surveys may consist of telephone contacts, personal interviews, or questionnaires as a means of obtaining data. Extensive statistical analysis usually is applied to survey results in order to predict the sales forecast.

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2. *Time series forecasting* or *Quantitative forecasting methods*

A trend of company's or industry's sales is obtained with the help of historical data relating to sales which are collected, observed or recorded at successive intervals of time. Such data is generally referred to as *time series.*

Various quantitative methods are classified as given below.

a) ***Moving average method***
   i. ***Simple average technique***
   ii. ***n-period moving average technique***
   iii. ***Weighted n-period moving average technique***
b) ***Exponential smoothing method***
c) ***Adjusted exponential smoothing***
d) ***Regression analysis***
e) ***Hand fitting/Freehand method***

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Differences between qualitative and quantitative

Qualitative methods	***Quantitative methods***
Uses when situation is vague and little data is available	Used in stable situations where historical data is available
Used for new products	Used for existing products
Involves no mathematical techniques	Involves mathematical techniques

5.6.1 Simple average technique

The simple arithmetic average of a set of observed values of sales for n-period is calculated and it is used as forecast for the (n+1)th period in the immediate future. The forecasting equation will be of the form

$$\text{The average demand for 'n' period, } D_{avg} = \frac{D_1 + D_2 + D_3 + \ldots + D_n}{n}$$

Forecast for '$n+1$' period is $F_{n+1} = D_{avg}$

Advantages of simple average method
1. Simple to use.

Disadvantages of simple average method
1. Ends up with a lot of data.
2. Gives equal importance to very old data.

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5.6.2 'n' period moving average method

The forecast for a particular period mostly depends on some near past values. The old data mostly do not predict the proper forecast. For the 'n+1' period, forecast is calculated from previous 'n' period average value. A Moving Average (MA) is obtained by summing and averaging the values from a given number of periods repetitively, each time deleting the oldest value and adding a new value.

$$F_{n+1} = \frac{D_1 + D_2 + D_3 + \ldots + D_n}{No.\ of\ period}$$

Advantages of moving average method

1. This method is easier to spot trend.
2. Moving average method remove short term deflection from the data available.
3. Moving average method is easier.
4. No personal prejudice and bias of the computer.
5. Simpler without fitting the curve

Disadvantages of moving average method

1. With this method, it is difficult to trace seasonal and cyclical patterns.
2. This method requires much historical data.
3. No mathematical equation for forecasting.

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5.6.2 'n' period moving average method

4. Care is to be taken for data selection and period of moving average.
5. Trend will be accurate only if cyclic and irregular fluctuations are uniform.
6. MA Tends to lag behind the trend.(means it gives lower values than regression line or an upward trend and vice-versa)

5.6.3 Weighted moving average

In this method, different weights are given to different periods as compared to simple moving average where equal weights are given to all the periods.

F_{n+1} = Weighted n-period moving average

$$F_{n+1} = W_1D_1 + W_2D_2 + \ldots\ldots + W_nD_n$$

$$\text{Or, } F_{n+1} = \sum_{k=1}^{k=n} W_k D_k$$

where, W_k = Weight given to time period 'n' (weights must add to one)

D_k = Demand for each time period.

A weighted moving average (*MAw)* allows some values to be emphasized by varying the weights assigned to each component of the average. Weights can be either percentages or a real number. This makes the techniques more responsive to changes since more recent periods may be more heavily weighted.

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5.6.3 Weighted moving average

Advantages of weighted moving average method

1. A weighted moving average assigns a factor related to how recent they are. The more recent the price, the more weight it has in the calculation. Thus, the weighted moving average is a more accurate measure of recent price action.
2. MAw is simple to calculate.
3. MAw is easy to understand.

Disadvantages of weighted moving average method

1. The disadvantage of *MAw* is that more false signals are likely to be generated than with simple moving averages.

Problems : 1

1. The monthly sales of scooters in an automobile shop are given below for one year. Find the sales forecast for the next month using, a) Simple average method b) Three months, four months and five months moving average c) Calculate weighted moving average for the 13th month taking weightages as 0.1, 0.1, 0.2, 0.2, 0.3 and 0.1 for the 7th month to 12th month respectively.

Month	1	2	3	4	5	6	7	8	9	10	11	12
Sales	12	18	24	28	36	30	21	42	15	8	20	10

5.6.3 Weighted moving average-Solution1

Simple average is given by,

a)

$$D_{avg} = \frac{D_1 + D_2 + D_3 + \ldots + D_n}{n}$$

$$= \frac{12+18+24+28+36+30+21+42+15+8+20+10}{12}$$

$$= \frac{264}{12} = 22$$

b) Forecast for the next month using three, four and five month moving average is computed and is tabulated in the table below.

Month	Sales	3 Months MA	4 months MA	5 months MA
1	12.00	-	-	-
2	18.00	-	-	-
3	24.00	-	-	-
4	28.00	18.00	-	-
5	36.00	23.33	20.50	-
6	30.00	29.33	26.50	23.60
7	21.00	31.33	29.50	27.20
8	42.00	29.00	28.75	27.80
9	15.00	31.00	32.25	31.40
10	8.00	26.00	27.00	28.80
11	20.00	21.67	21.50	23.20
12	10.00	14.33	21.25	21.20
13		*12.67*	*13.25*	*19.00*

c)

$$F_{n+1} = W_1D_1 + W_2D_2 + \ldots\ldots + W_nD_n$$

$$=(0.1\times 21)+(0.1\times 42)+(0.2\times 15)+(0.2\times 8)+(0.3\times 20)+(0.1\times 10)= 17.9 \cong 18$$

Average Technique-Problem2

Compute a three week moving average forecast for the arrival of medical clinic patients in Week 4. The number of arrivals for the past 3 weeks were :-

Week	1	2	3
Patients arrived	400	380	411

If the actual number of patient arrivals in week 4 is 415, what is the forecast for Week 5.

Solution- 2

Moving average is given by,

a) $$D_{avg} = \frac{D_1 + D_2 + D_3 + \ldots + D_n}{No.\ of\ period} = \frac{400 + 380 + 411}{3} = 397$$

b) Forecast for the next month using three month moving average is

$$D_{avg} = \frac{D_1 + D_2 + D_3 + \ldots + D_n}{No.\ of\ period} = \frac{380 + 411 + 415}{3} = 402$$

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Average Technique-Problem3

Demand for scooter from January to June is given. Calculate the demand for July using simple moving average method.

Months	Jan	Feb	Mar	Apr	May	June
Demand	108	112	200	100	150	175

Solution- 3

a) $$D_{July} = \frac{D_1 + D_2 + D_3}{No.\ of\ period} = \frac{100 + 150 + 175}{3} = 141.6 \cong 142$$

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5.6.4 Exponential smoothing

The exponential smoothing method is a sophisticated weighted moving average method that calculates the average of a time series by giving recent demands more weight than earlier demands. It is the most frequently used formal forecasting methods because of its simplicity and the small amount of data needed to support it. In the simple exponential smoothing method, only forecasted and actual demand of current month is necessary to forecast the demand for next period.

In simple exponential smoothening, the forecast Fn+1 is made up of the last period forecast Fn plus a portion, 'α' multiplied by the difference between the last periods actual demand At and last period forecast Ft and is given by the equation given below.

$$F_{n+1} = F_n + \alpha (A_n - F_n)$$

where,

F_{n+1} = Forecasted demand for the next time period

F_n = Forecasted demand for n^{th} period

α = Weightage given (Smoothing constant)

A_n = Actual demand for the n^{th} period

5.6.4 Exponential smoothing

The value (1-α)) is called the *damping factor*. Larger values of 'α' emphasize recent levels of demand and result in forecasts more responsive to changes in the underlying average. Value of 'α' ranges from 0 to 1. An 'α' value that yields an approximately equivalent degree of smoothing as a moving average of 'n' periods is

$$\alpha = \frac{2}{n+1}$$

Advantages of smoothing methods

1. Smoothing methods are well suited for immediate prediction of large number of items.
2. Smoothing methods eliminate the need for storing historic values of the variable.
3. Smoothing methods have relatively good short-term accuracy, simplicity, and low cost.
4. Exponential smoothing is easier to implement and more efficient to compute.
5. With exponential smoothing, the effect of the unusual data fades uniformly.

Disadvantages of smoothing methods

1. There is no good rule for determining the approximate value of the weights.
2. Smoothing technique does not account for any of the other variables that might influence the forecast.

5.6.4 *Exponential smoothing*-**Problems 1**

A firm uses simple exponential smoothing with α= 0.1 to forecast demand. The forecast for the week of February was 500 units, whereas actual demand was 450 units. a) Forecast the demand for the next week. b) Continue forecasting through assuming that subsequent demands were 505, 516, 488, 467, 554 and 510 units.

Solution 1

Forecast for the next time period is given by $F_{n+1} = F_n + \alpha\,(A_n - F_n)$

Given forecast for the first week of February as 500 units and actual demand as 450 units. Forecast for the next time period are tabulated below.

F_n	A_n	$F_{n+1} = F_n + \alpha\,(A_n - F_n)$
500	450	F_2 = 500 + 0.1(450 - 500) = 495
495	505	F_3 = 495 + 0.1(505 - 495) = 496
496	516	F_4 = 496 + 0.1(516 - 496) = 498
498	488	F_5 = 498 + 0.1(488 - 498) = 497
497	467	F_6 = 497 + 0.1(467 - 497) = 494
494	554	F_7 = 494 + 0.1(554 - 494) = 500
500	510	F_8 = 500 + 0.1(510 - 500) = ***501***

Forecast for the 8th week is 501 units.

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5.6.4 *Exponential smoothing*-**Problems 2**

Given the weekly demand data, what are the exponential smoothing forecasts for periods 2-10 using α =0.10. Assume *F1=D1*.

Week	1	2	3	4	5	6	7	8	9
Demand	820	775	680	655	750	802	798	689	775

Solution 2

Assume $F_1 = A_1$ = 820.

Week	F_n	A_n	$F_{n+1} = F_n + \alpha\,(A_n - F_n)$
2	820	820	F_2 = 820 + 0.1(820 - 820) = 820
3	820	775	F_3 = 820 + 0.1(775 - 820) = 815.50
4	815.50	680	F_4 = 815.50 + 0.1(680 - 815.50) = 801.95
5	801.95	655	F_5 = 801.95 + 0.1(655 - 801.95) = 787.26
6	787.26	750	F_6 = 787.26 + 0.1(750 -787.26) = 783.53
7	783.53	802	F_7 = 783.53 + 0.1(802 - 783.53) = 785.38
8	785.38	798	F_8 = 785.38 + 0.1(798-785.38) = 786.64
9	786.64	689	F_9 = 786.64+ 0.1(689 -786.64) = 776.88
10	776.88	775	F_{10} = 776.88 + 0.1(775 -776.88) = ***776.89***

46 Forecast for the 10th week is 776.89 units.

5.6.5 Adjusted exponential smoothing

The simple exponential smoothing methods of forecasting is highly flexible because the smoothing effect can be increased or decreased by lowering or raising the value of the smoothing constant. However, if there is a trend existing in the series, the series will always lag behind the trend, i.e., for an increasing trend the forecast will be low and for decreasing trend they will be high.

Forecast Including Trend, FIT is hence calculated using the following expression.

$$\text{Forecast Including Trend, } FIT_{n+1} = F_{n+1} + T_{n+1}$$

$$\text{where, } F_{n+1} = \alpha (A_n) + (1-\alpha)(F_n + T_n)$$

$$\text{and , } T_{n+1} = \beta (F_{n+1} - F_n) + (1-\beta) T_n$$

where,

FIT_{n+1} = Adjusted Forecast Including Trend
F_{n+1} = Exponentially Smoothed Forecast
T_{n+1} = Trend Estimate
α = Smoothing Constant
β = Trend Smoothing Constant

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5.6.5 Adjusted exponential smoothing

This method is called as ***Holt's method.*** Higher value of the trend smoothing constant makes more responsive to recent changes in trend

Problems :1

Compute the adjusted exponential forecast for the first week of March for a firm with the following data. Assume the forecast for the first week of January as 600 and corresponding initial trend as 0. Let $\alpha = 0.1$, and $\beta = 0.2$.

Week	1/1	2/1	3/1	4/1	1/2	2/2	3/2	4/2
Demand	650	600	550	650	625	675	700	710

Solution :1

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5.6.5 Adjusted exponential smoothing

Solution :1

Smoothed Forecast for the 2nd week of January = $F_2 = 0.1 \times (650) + (1-0.1)(600+0) = 605$

Trend adjustment factor for the 2nd week of January =

$$T_2 = 0.2(605 - 600) + (0.8) \times 0 = 1.0$$

Adjusted exponential smoothed forecast for the 2nd week of January,

$$FIT_2 = F_2 + T_2 = 605 + 1 = 606$$

Smoothed Forecast for the 3rd week of January = $F_3 = 0.1 \times (600) + (1-0.1)(605+1) = 605.4$

Trend adjustment factor for the 3rd week of January =

$$T_3 = 0.2(605.4 - 605) + (0.8) \times 1 = 0.88$$

Adjusted exponential smoothed forecast for the second week of January,

$$FIT_3 = F_3 + T_3 = 605.4 + 0.88 = 606.28$$

The remainders of the calculations are given in table below.

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5.6.5 Adjusted exponential smoothing

Solution :1

Week	F_n	A_n	F_{n+1}	T_n	T_{n+1}	FIT_{n+1}
2	600	650	605.0	0.0	1.00	606.00
3	605.0	600	605.4	1.0	0.880	606.28
4	605.4	550	600.7	0.9	-0.246	600.41
5	600.7	650	605.4	-0.2	0.746	606.11
6	605.4	625	608.0	0.7	1.124	609.12
7	608.0	675	615.7	1.1	2.442	618.15
8	615.7	700	626.3	2.4	4.078	630.42
9	626.3	710	638.4	4.1	5.670	*644.05*

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5.6.5 Adjusted exponential smoothing

Problem :2

Develop an adjusted exponential forecast for the week of 9th week for a firm with the demand shown in table. Let $\alpha = 0.1$ and $\beta = 0.2$. Begin with a previous average of Fn= 650, and let the initial trend adjustment, Tn = 0.

Week	1	2	3	4	5	6	7	8
Demand	700	685	648	717	713	728	754	762

Solution :2

We have, Forecasting Including Trend, $FIT_{n+1} = F_{n+1} + T_{n+1}$

$F_{n+1} = \alpha\ (A_n) + (1-\alpha)\ (F_n + T_n)$ and $T_{n+1} = \beta\,(F_{n+1} - F_n) + (1-\beta)T_n$

Using the above equations, the forecast for the 9th week is computed and is given in the table below.

5.6.5 Adjusted exponential smoothing

Solution :2

Week	F_n	A_n	F_{n+1}	T_n	T_{n+1}	FIT_{n+1}
2	650	700	655	0.0	1.0	656.0
3	655	685	659	1.0	1.6	660.5
4	659	648	659	1.6	1.3	660.6
5	659	717	666	1.3	2.5	668.7
6	666	713	673	2.5	3.3	676.4
7	673	728	682	3.3	4.4	686.0
8	682	754	693	4.4	5.7	698.5
9	693	762	705	5.7	7.0	711.9

5.6.6 Regression analysis

Regression analysis is a statistical method used to incorporate independent factors that are thought to influence sales into the forecasting procedure. *Regression* means *dependence* and involves estimating the value of a dependent variable y from an independent variable *x*. An independent variable is a driving force, whereas dependent variable is an effect, or a response to a change in the independent variable.

In simple regression, only one independent variable is used, whereas in multiple regression, two or more independent variables are involved. In the modern business conditions and situations, a number of factors are responsible for the changes made in the variables.

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5.6.6 Regression analysis

Least square method/ Linear regression method

The method which is generally used in fitting the linear trend is the *method of least squares* as the sum of the square of the deviations of the various points from the line of best fit is minimum or least. It gives the equation of the line for which the sum of the squares of vertical distance between the actual values and the line values are at minimum. This line passes through the points in such a way that the sum of squares of the deviations of the actual points above and below the trend line is minimum.

With this method a straight line trend is obtained and hence this method is also called as ***straight line trend method***. This line is called '***line of best fit'.***

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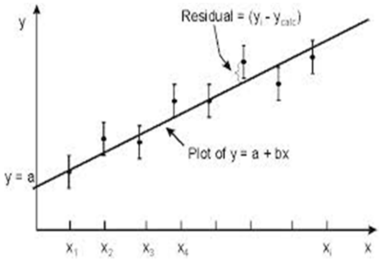
Regression analysis-Least square method/ Linear regression method

A straight line fitted in the least square method is given as, $y = a + bx$

where, ***y*** is the dependent variable regressed forecast) of sales in rupees or volume of demand and ***x*** is the independent variable in terms of unit of time as day, week, month or year. The values of the constant ***'a'***(the height at which the line intercepts the 'y' axis) and ***'b'*** (slope of the regression line) are determined by the two simultaneous equations.



$$\sum y = Na + b\sum x$$
$$\sum xy = a\sum x + b\sum x^2$$

where 'N' is the number of observations.

These two equations are called as ***normal equations***.

$$a = \frac{\sum y}{N} \qquad b = \frac{\sum xy}{\sum x^2}$$

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Least square method/ Linear regression method

Advantages of least square method

1. Free from bias and personal prejudice.
2. This method gives the most satisfactory results.
3. It is very simple and economical and takes very little time.

Disadvantages least square method Straight line trend method

1. Its disadvantage is that it is not flexible.
2. If more data is added, all the calculations are done again.

Problem 1

From the following time series data of sale project the sales for the next three years.

Year	x	2001	2002	2003	2004	2005	2006	2007
Sale (1000 unit)	y	80	90	92	83	94	99	92

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Least square method/ Linear regression method

Solution 1

Years	Time deviation from 2004 x	Sales in (1000 units) y	Squares of time	Product of time deviations and sales xy
2001	–3	80	9	–240
2002	–2	90	4	–180
2003	–1	92	1	–92
2004	0	83	0	0
2005	+1	94	1	+94
2006	+2	99	4	+198
2007	+3	92	9	+276
$N = 7$	$\Sigma x = 0$	$\Sigma y = 630$	$\Sigma x^2 = 28$	$\Sigma xy = +56$

Regression equation of Y on X, $y = a + bx$

To find the values of a and b

$$a = \frac{\sum y}{N} = \frac{630}{7} = 90$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{56}{28} = 2$$

Hence, regression equation comes to Y = 90 + 2X. With the help of this equation we can project the trend values for the next three years, i.e., 2008, 2009 and 2010.

Least square method/ Linear regression method

Solution 1

$$y_{2008} = 90 + 2(4) = 90 + 8 = 98 \text{ (1000) units.}$$

$$y_{2009} = 90 + 2(5) = 90 + 10 = 100 \text{ (1000) units.}$$

$$y_{2010} = 90 + 2(6) = 90 + 12 = 102 \text{ (1000) units.}$$

Problem 2

With the help of following data project the trend of sales for the next five years:

Years	2002	2003	2004	2005	2006	2007
Sales (in lakhs)	100	110	115	120	135	140

Solution 2

Regression equation of 'y' on 'x', $y = a + bx$

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Least square method/ Linear regression method

Solution 2

Year	Time deviations from 2004.5 and multiplying it by 2 to have observations for an year.	Sales (in lakh Rs.)	Squares of time deviation	Product of time deviation and sales
	x	y	x^2	xy
2002	-5	100	25	-500
2003	-3	110	9	-330
2004	-1	115	1	-115
2005	+1	120	1	+120
2006	+3	135	9	+405
2007	+ 5	140	25	+700
$N = 6$	$\Sigma x = 0$	$\Sigma y = 720$	$\Sigma x^2 = 70$	$\Sigma xy = 280$

To find the values of '*a*' and '*b*'

$$a = \frac{\sum y}{N} = \frac{720}{6} = 120 \quad \text{and} \quad b = \frac{\sum xy}{\sum x^2} = \frac{280}{70} = 4$$

Sales forecast for the next years, i.e., 2008 to 2012

y_{2008} = 120 + 4 (7) = 120 + 28 = Rs. 148 lakhs

y_{2009} =120 + 4 (9) = 120 + 36 = Rs. 156 lakhs

y_{2010} = 120 + 4 (11) = 120 + 44 = Rs. 164 lakhs.

y_{2011} =120 + 4 (13) = 120 + 52 = Rs. 172 lakhs.

y_{2012} = 120 + 4 (15) = 120 + 60 = Rs. 180 lakhs.

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Least square method/ Linear regression method

Problem 3

With the help of following data project the demand forecast for the month of July using linear regression analysis.

Month	Jan	Feb	March	Apr	May	June
Demand	435	420	485	510	465	450

Solution :3

Month	Time deviations from 3.5 and multiplying it by 2	Demand	Squares of time deviation	Product of time deviation and sales
	x	y	x^2	xy
1	-5	435	25	-2175
2	-3	420	9	-1260
3	-1	485	1	-485
4	1	510	1	510
5	3	465	9	1395
6	5	450	25	2250
$N = 6$	$\Sigma x = 0$	$\Sigma y = 2765$	$\Sigma x^2 = 70$	$\Sigma xy = 235$

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Least square method/ Linear regression method

Solution :3

Regression equation of 'y' on 'x', $y = a + bx$

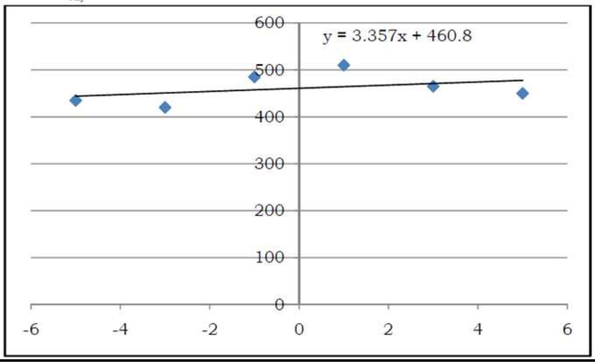
To find the values of 'a' and 'b'

$$a = \frac{\sum y}{N} = \frac{2765}{6} = 460.8$$

$$b = \frac{\sum xy}{\sum x^2} = \frac{235}{70} = 3.357$$

Hence, regression equation comes to $y = 460.8 + 3.357x$.

$$y_{\text{July}} = 460.8 + 3.357 \times 6 = 480.98 \cong 481 \text{ units.}$$



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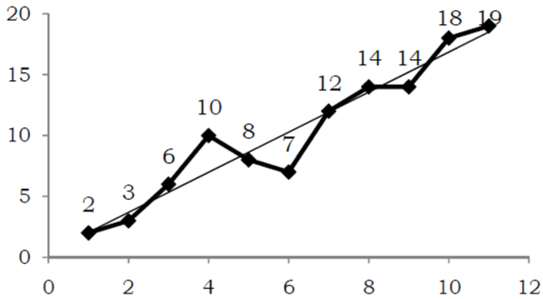
Hand fitting



In this method, the given time series data are plotted on graph paper by taking time on X-axis and the other variable on Y-axis. The points are joined by straight lines. The graph obtained will be irregular. Now drawing a free hand curve passing approximately through all this points will represent trend line.

However, it is very difficult to draw a freehand smooth curve and different persons are likely to draw different curves from the same data. This method is however, inaccurate, since different persons may fit different trend lines for the same set of data.

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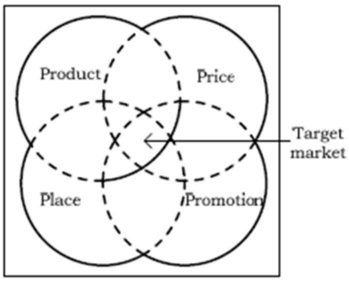
Marketing mix

Marketing mix is a set of controllable variables that a firm can use to influence the buyer's response within a given marketing environment. The combination of these variables constitutes the marketing mix. The elements of marketing mix known as Four P's are



Marketing mix

1. ***Product*** **–** The product is the physical product or service offered to the consumer. Product decisions include aspects such as function, appearance, packaging, service, warranty, etc.
2. ***Price*** **–** The price is the amount a customer pays for the product. The business may increase or decrease the price of product if there are competitors for the same product.

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Marketing mix

3. ***Place*** **–** Place represents the location where a product can be purchased. Place decisions are those associated with channels of distribution that serve as the means for getting the product to the target customers. Distribution decisions include market coverage, channel member selection, and levels of service.
4. ***Promotion*** **–** Promotion decisions are those related to communicating and selling to potential consumers. Promotion decisions involve advertising, public relations, media types, etc.

The traditional marketing mix model was primarily directed and useful for tangible products. The ***7-P's model is more useful for services industries. Booms and Bitner's*** have added the following 3 additional Ps to the original marketing mix.

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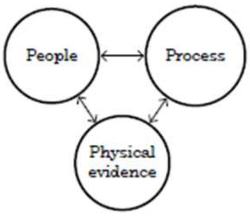
Marketing mix



Extended marketing mix

5. ***People*** - Services are performed by people whose performance influences the quality of the service.

6. ***Process*** - Procedure, mechanisms and flow of activities by which services are consumed (customer management processes) are an essential element of the marketing strategy.

7. ***Physical evidence*** – Physical evidence is the environment in which the service is delivered. A clean, friendly environment allows the consumer to make judgments on the organization.

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Pricing

Price is the amount of money needed to acquire a product. Pricing is the process of setting price for a product. Price set for a product should be optimum.

Factors affecting pricing

The final price for a product may be influenced by many factors which can be categorized into two main groups –***internal and external factors.***

I. ***Internal factors*** – Various internal factors affecting pricing are –

a) ***Marketing objectives*** - Marketing decisions are guided by the overall objectives of the company. The four main marketing objectives affecting price include –

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Pricing

i. ***Return on Investment (ROI)*** **-** A firm may set as a marketing objective the requirement that all products attain a certain percentage return on the organization’s spending on marketing the product.

ii. ***Cash flow*** **-** Firms may seek to set prices at a level that will ensure that sales revenue will at least cover product production and marketing costs. This is most likely to occur with new products where the organizational objectives allow a new product to simply meet its expenses while efforts are made to establish the product in the market.

iii. ***Market share*** **-** The pricing decision may be important when the firm has an objective of gaining a hold in a new market or retaining a certain percent of an existing market. For new products under this objective the price is set artificially low in order to capture a sizeable portion of the market.

iv. ***Maximize profits*** **-** Older products in the market that is no longer growing may have a company objective requiring the price be set at a level that optimizes profits.

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Pricing

b) ***Marketing strategy*** **-** Marketers selling high quality products would be expected to price their products in a range that will add to the perception of the product being at high-level.

c) ***Costs*** **-** The starting point for setting a product’s price is to first determine how much it will cost to get the product to their customers. Obviously, whatever price customer’s pay must exceed the cost of producing a good or delivering a service otherwise the company will lose money. When analyzing cost, the marketer will consider all costs needed to get the product to market including those associated with production, marketing, distribution and company administration (e.g., office expense). These costs can be divided into two main categories

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Pricing

i. ***Fixed costs*** **-** Also referred to as overhead costs, these represent costs the marketing organization incurs that are not affected by level of production or sales. Fixed costs may also exist in the form of expenditure for sales force, carrying out an advertising campaign and paying a service to host the company's website.
ii. ***Variable costs*** **-** These costs are directly associated with the production and sales of products and, consequently, may change as the level of production or sales changes.

II. ***External Factors*** **-** There are a number of influencing factors which are not controlled by the company but will impact pricing decisions. Understanding these factors requires the marketer conduct research to monitor what is happening in each market the company serves since the effect of these factors can vary by market.

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Pricing

a) ***Customer expectations*** **-**When deciding on a price marketers need to conduct customer research to determine what 'price points' are acceptable. Pricing beyond these price points could discourage customers from purchasing.
b) ***Competitive products*** **-** Marketers should look into competitor's price before setting the price of their product..
c) ***Government regulation*** **-** Marketers must be aware of regulations that impact how price is set in the markets in which their products are sold. Price regulations can come from any level of government and vary widely in their requirements. For instance, in some industries, government regulation may set price ceilings (how high price may be set) while in other industries there may be price floors (how low price may be set).

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Pricing

Important situations where price setting is a problem

1. When a firm is setting price for the 1st time.
2. When the competitor changes the price.
3. When the firm produces several products and demand for one product is influenced by another. For instance consider the sale of Maruti 800 and Maruti Alto. If the price margin between these two cars is low then the sale of one of the car will be affected.
4. When the firm has to change the price because of certain circumstance such as change in government policy, change in economy etc.

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Pricing

Methods for pricing or pricing policies or pricing strategies

While there is no single recipe to determine pricing, the following is a general sequence of steps that might be followed for developing the pricing of a new product.

1. ***Develop marketing strategy*** **-** perform marketing analysis, targeting, and positioning.
2. ***Make marketing mix decisions*** **-** define the product, distribution, and promotional tactics.
3. ***Estimate the demand curve*** **-** understand how quantity demanded varies with price.
4. ***Calculate cost*** **-** Include fixed and variable costs associated with the product.
5. ***Understand environmental factors*** **-** evaluate likely competitor actions, understand legal constraints, etc.
6. ***Determine pricing*** **-** Using information in the above steps, select a pricing method, develop the pricing structure, and define discounts.

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Pricing

Important pricing methods

1. ***Market penetration -*** In this method of pricing, low price are fixed to capture market. This method is used when products are sensitive to (affected by) price changes or when the product faces strong competition. This method is also called as ***low price policy***.
2. ***Market skimming -*** This method sets the prices at the highest level at which goods can be sold. This method is used usually when company has monopoly in the market or there is rare chance for entry of a competitor in the market.
3. ***One price and variable pricing system -*** In one price system same price is charged for every customer who buys the same product. Under variable pricing system, prices charged for the same quantities may vary among different customers such as one time customers and regular customers.
4. ***Odd pricing system*** - This is a practice of pricing the goods at odd-ending prices such as Rs.1199.00 or Rs.99.99 etc.

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Pricing

Important pricing methods

5. ***Follow the market pricing -*** In this method, price is fixed on the basis of the prices fixed by competitors and trend in the market.
6. ***Fixing a price to reduce loss -*** In this method the product is sold below the cost of production. This method is used when there is a lot of idle raw materials in the plant which if not utilized immediately may give rise to huge loss.
7. ***Ethical pricing -*** In this type of pricing, the product may be sold below cost of production. Here main consideration given is not profit generation or to cover cost of production. Here the responsibility towards public is given importance. Eg. Vaccines or special medicines.
8. ***Mark-up price -*** In this method, companies add a standard mark-up price to the cost of production of the product. This mark-up price is the profit to the company.

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Channels of Distribution

The channel of distribution refers to the various alternative ways for supplying the products to the consumers from producers. Distribution channel supply products available to customers in the required time, place and quantity. Activities involved in the channel are wide and varied though the basic activities revolve around these general tasks.

1. Ordering
2. Handling and shipping
3. Storage
4. Display
5. Promotion
6. Selling
7. Information feedback

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Channels of Distribution

Retailer is a person or business firm that sells goods to consumers. Retailing activities includes selling activities or services directly to the final consumers. Retailers purchase purchases goods either from the manufacturer or from the wholesaler and then sell in small lots or in piece to the consumers.

Wholesaler is someone who buys large quantities of goods and resells to retailers rather than to the ultimate customers. Wholesaling includes all the activities involved in selling of goods or services to these who buy for resale or business use. Manufactures use wholesalers because wholesalers can perform functions more efficiently and cost effectively than the manufacturers them selves can. Functions of wholesalers include selling, promoting, warehousing, transportation, financing, risk bearing etc.

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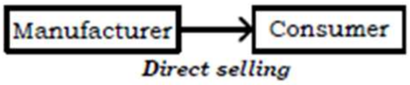
Channels of Distribution

Channels of distribution are also called as trade channels or marketing channels. Following are the common channels of distribution.

1. ***Direct selling by the manufacturer to the consumer called as direct distribution*** - In direct selling, products sell his products directly to the customers. For selling he can take the help of sales man. This system is effective where margin of profit is more, number of products are less, consumers are limited and products are costly. eg. sale of products by Amway, Modicare etc.



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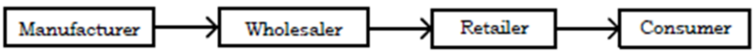
Channels of Distribution

2. ***Selling through middle man –*** In ***indirect selling***, the products from the manufacturer reach the consumer through middleman. This system is effective where huge volume of products with a low margin of profit (per product) is sold to large number of consumers. eg. Fast Moving Consumer Goods(FMCG) like tooth paste, soap etc. The middle men may be either retailers or wholesalers or both, i.e., three level distributions or four level distributions.



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Channels of Distribution

Importance of distribution channels

1. The main use of distribution channel marketing is to provide a link between producer and consumer.
2. One of the chief roles of marketing channels is that it helps to convert potential buyers into profitable orders.
3. Distribution channel assist in the data collection about of customers, competitors and other forces in the marketing environment for market research.
4. Distribution channel searches out buyers and sellers matching goods to the requirements of market.
5. Distribution channel suggests the pricing policies in such a manner that would be acceptable to buyers and ensure effective distribution.

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Channels of Distribution

Choice of a channel of distribution

The factors to be considered before choosing a suitable channel of distribution are listed below.

1. ***Product considerations*** **-** The nature and type of product have an important bearing on the choice of distribution channels. For examples, perishable goods need speedy movements and hence shorter channel of distribution; for durable goods, longer and diversified channels may be used; Similarly, for technical products requiring specialized selling and servicing talents, the shortest channel should be used.
2. ***Market considerations*** **-** The nature and type of customers and size of market are important considerations in the choice of a channel of distribution. For example, if the market size is large, there may be long channels, whereas in a small market direct selling may be profitable.

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Channels of Distribution

3. ***Company considerations* -** The nature, size and objectives of the business firm also play an important role in the selection of distribution channel. It includes financial resources, market standing, volume of production, desire for control of channel, services provided by manufacturers', etc. For example a company with substantial financial resources need not rely too much on the middlemen and can afford to reduce the levels of distribution. Similarly a company desiring to exercise greater control over channel will prefer a shorter channel.

4. ***Middlemen considerations* -** The cost and efficiency of distribution depend largely on the nature and type of middlemen. It includes characteristics of middlemen such as availability, attitudes, services, sales potential, costs etc. For example, if the terms and conditions of engaging wholesalers are unfavorable, a manufacturer may like to channelize his products through semi- wholesalers or retailers, thereby, bypassing wholesalers.

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Advertising

Advertising is the publication of information regarding products put up for sales and is a method to bring the producer in touch with the customers. Advertising is the process of communicating persuasive (convincing) information about the product to target markets by means of written and speech or by visual material.

Functions of advertising department

1. Preparation and control of advertising budget.
2. Supervising advertising and market research.
3. Cooperation with the sales and other departments.
4. Distribution of advertising material.
5. Production and supervision of sales promotion material.
6. Co-ordination with the employer and public relation department for improving public and employee relations.

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Advertising

Importance of advertising

1. ***Advertising is important for the customers*** **-** If the product is not advertised, no customer will come to know what products are available and will not buy the product even if the product was for their benefit. Advertising helps people find the best products for themselves, their kids, and their family. Advertising helps to compare the products and buy so that they get what they desire after spending their valuable money.

2. ***Advertising is important for the seller and companies producing the products*** **-**Advertising helps making people aware of the new product so that the consumers come and try the product. Customers buy a product only after they are made aware of the products available in the market.The brands are made popular through advertising. A manufacturer can face market competition effectively and can make his products popular through advertising

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Advertising

3. ***Advertising is important for the society*** **-** Advertising helps educating people. There are some social issues also which advertising deals with like child labour, liquor consumption, smoking, family planning education, etc. thus, advertising plays a very important role in society.

Publicity - Publicity is an indirect-advertising where news about a product or service is planted in communication media like papers, radio, television and journals.

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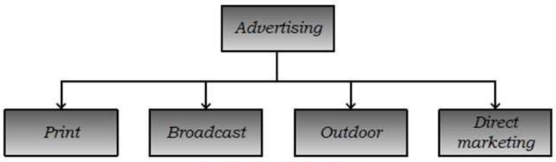
Advertising

Classification of advertising



Classification of advertising

1. ***Print advertising*** - Anything written in the print media to grab the attention of the specific target audience comes under print advertising. These advertisements appear in newspapers or magazines and are sometimes included as brochures or fliers.

2. ***Broadcast advertising*** - The commercials aired on radio and televisions are an essential part of broadcast advertising. The broadcast media like radio and television reaches a wider audience as opposed to the print media.

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Advertising

3. ***Outdoor advertising*** **–** Outdoor advertising communicates the message to the general public through highway billboards, transit posters and so on. Organizing events such as trade fairs and exhibitions for promotion of the product also in a way to advertise the product.

4. ***Direct marketing***

a) ***Direct mail*** **–** In this method, the newsletters, data sheets, and the brochures of the company are directly mailed to the customers' postal address.

b) ***Telephonic advertising*** - The advertising is done by calling up the customers on there telephones, giving messages on mobile phones, etc.

c) Online advertising – This includes companies sending e-mails to the customers or other companies enclosing information about their products and services, putting online banners, providing e-shopping options, etc.

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Advertising

5. ***Covert Advertising –*** Covert advertising is a unique kind of advertising in which a product or a particular brand is incorporated in some entertainment and media channels like movies, television shows or even sports. Some of the famous examples for this sort of advertising have to be the appearance of brand *Nokia which is displayed on* Tom Cruise's phone in the movie '*Minority Report*'.

Benefits of advertising

1. Advertising introduces existing and new products to the public.
2. Advertising enhances (improves) potential buyer's responses.
3. Advertising tells that a product which customer wants exists and from where it can be procured and at what price.
4. Advertising makes a product stand against competitors products.
5. Advertising supports sales man.
6. Advertising increases profit.

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Advertising

7. Advertising tells public the good qualities of the product.
8. Advertising builds up reputation for the company's goods and services.
9. Advertising creates a confidence in the mind of buyers regarding quality of goods.

Steps in advertising

1. ***Knowing the objective -*** One should first know the objective or the purpose of advertising. i.e., what message is to be delivered to the audience?.
2. ***Research -*** This step involves finding out the market behavior, knowing the competitors, what type of advertising they are using, what is the response of the consumers, availability of the resources needed in the process, etc.

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Advertising- *Steps in advertising*

3. ***Target audience*** **-** The next step is to identify the target consumers most likely to buy the product. The target should be appropriately identified. For e.g. if the product is a health drink for growing kids, then the target customers will be the parents who are going to buy it and not the kids who are going to drink it.
4. ***Media selection*** **-** Now that the target audience is identified, one should select an appropriate media for advertising so that the customers who are to be informed about the product and are willing to buy are successfully reached. The selection of media depends upon factors such as desired reach, frequency, impact etc.
5. ***Setting the budget*** **-** Then the advertising budget has to be planned so that there is no short of funds or excess of funds during the process of advertising.

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Advertising- *Steps in advertising*

6. ***Designing and creating the Ad*** **-** First the design that is the outline of ad on papers is made by the copywriters of the agency, then the actual creation of ad is done with help of the art directors and the creative personnel of the agency.
7. ***Place and time of Ad*** **-** The place will be decided according to the target customers where the ad is most visible clearly to them. The finalization of time on which the ad will be telecasted or shown on the selected media.
8. ***Execution*** **–** Finally, the advertise is released with perfect creation, perfect placement and perfect timing in the market.
9. ***Performance*** **-** The last step is to judge the performance of the ad in terms of the response from the customers, whether they are satisfied with the ad and the product, did the ad reached all the targeted people, was the advertise capable enough to compete with the other players, etc.

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Sales promotion

All activities that is helpful for the development of sales or increasing the demand level for a product very quickly is called sales promotion.

Sales promotion includes those marketing activities other than personal selling, advertising and publicity that stimulate consumer purchasing or dealer effectiveness such as displays, shows and exhibitions, demonstrations and various non-recurrent (repeated) selling efforts not in the ordinary routine.

Objectives of sales promotions

1. **To introduce new products -** Companies distribute free samples for introducing new products. The consumers after using these free samples may develop a taste for it and buy the products later for consumption.

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Sales promotion -*Objectives of sales promotions*

2. **To attract new customers and retain the existing ones -** Customers are generally attracted towards the product that offers discount, gift, prize, etc on buying.

3. **To maintain sales of seasonal products -** There are some products like air conditioner, fan, refrigerator, cooler, etc., which are used only in particular seasons. To maintain the sale of these types of products normally the manufactures give off-season discount

4. ***To meet the challenge of competition* -** Today's business faces competition all the time. New products frequently come to the market and at the same time improvement also takes place. So sales promotion measures have become essential to retain the market share of the seller in the product-market.

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Sales promotion

Important sales promotion methods

1. ***Consumer promotion*** - In this type of sales promotion customers are persuaded to purchase the product by offering discount, money-refund, contests and competitions etc.

2. ***Trade promotion*** - In this type of sales promotion, efforts of distributors wholesalers and other intermediaries are stimulated by offering allowances, discounts, free holiday trips etc.

3. ***Sales force promotion*** - In this type of sales promotion, efforts of sales persons are stimulated by giving bonuses, contests etc.

4. ***Product demonstrations and conferences*** - Fairs and exhibitions may be organized at local, regional, national or international level to introduce new products, demonstrate the products and to explain special features and usefulness of the products.

5. ***Displays*** - This type of sale promotion involves installation of displays at points of sale, use posters, banners, placards and leaflets.

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Supplier partnerships

Supplier partnership is a business relationship with a supplier, based on mutual need, where both companies create new value through a shared vision and a collaborative investment of resources. The philosophy is that, through cooperation rather than confrontation, both parties benefit. It is a longer term view, emphasizing total cost rather than a product price.

The concept of supplier partners developed strongly in the 1980s as a result of the movement towards *Just-In-Time (JIT)* manufacturing. JIT emphasizes reduction in waste, shortening of lead times, improvement in quality, continuous improvement, and simplicity. *Deming suggested* that long term relationship of loyalty and trust should be developed with the supplier to ensure improved products and services.

Key elements to a partnering relationship are:

1. ***Long-term commitment*** - Partnering always works only in the long run. It takes time for both the participants to get to know the strength of each other..

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Supplier partnerships

2. ***Trust*** **-** Trust can be achieved by open communication, fairness in treatment and non partiality in treatment.
3. ***Shared vision*** **-** Both participants should understand the need for customer satisfaction. For this to take place, partnering organization should share their visions, needs and expectations.

Advantages of supplier partnerships

1. Supplier knows management policy of the organization.
2. Supplier can supply material meeting quality specifications.
3. Supplier has capability to meet the amount of production.
4. A supplier may only take risks in a long-term commitment.

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Markets and types of markets

"Market refers to arrangement, whereby buyers and sellers come in contact with each other directly or indirectly, to buy or sell goods."

1. ***Consumer markets*** **-** The consumer market is made up of individuals who buy goods and services for their own personal use or use in their household. Consumer market is characterized by the presence of high competition, penetration pricing, complex channel management and finally a high expense on manufacturing and distribution.

Consumer markets can be categorized as *Fast Moving Consumer Goods(FMCGs)* eg. soap, tooth paste etc., *consumer durables* eg. DVD players, fridge etc., and *consumer services* eg. hairdressing, dentists, childcare etc.

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Markets and types of markets

2. ***Business markets*** - Business markets or industrial markets or *Business To Business (B2B)* include those that buy goods and services for use in producing their own products to sell. Industrial markets involve the sale of goods between businesses. These are goods that are not aimed directly at consumers. For example, refrigerator manufacturer might purchase sheets of steels wires etc., as part of its final product. Business markets involve selling of projects too.
3. ***Government market*** - The government market mainly involves Government offices, ordnance factories, army, navy and other government departments. The government market consists of government agencies that buy goods to produce public services or transfer goods to others who need them.
4. ***Global markets*** - International markets consist of buyers in other countries, including consumers, producers, resellers and governments.

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Methods of stimulating demand in market

Businesses can increase the market demand for products or services by *branding, improving quality, and opening communications with consumers.*

1. ***Branding*** - Branding is a long-term strategy to increase a business's market demand. Through strong branding efforts, consumers will recognize the brand name and be more likely to buy that product. The company's values and guarantees, such as having the highest quality products or fastest customer service, should be clear within marketing campaigns. Upon seeing a business's logo or name, customers should instantly recognize the brand and what sets it apart from competitors.
2. ***Improving the quality*** - Improving the quality of the product/service can greatly increase a business's market demand.. Before releasing any improvements, market studies should be done to make sure that the changes made will be effective with consumers.

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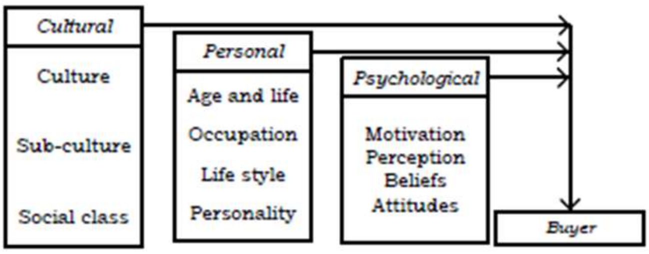
Methods of stimulating demand in market

3. ***Opening communications*** -. By becoming active on social media websites and opening communication channels with consumers, businesses can immediately see any changes in trends, demands and needs. This also opens the door for businesses to find out why consumers are skeptical of their products, concerns that they may have, and what can be done to better serve their needs.

Major factors influencing buying behavior



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Methods of stimulating demand in market

Major factors influencing buying behavior

1. ***Cultural factors –*** Culture influences the consumer behavior most effectively than any others. It includes *culture, sub-culture and social class.* Basically, culture is the part of every society and is the important cause of person wants and behavior.
2. ***Personal factors*** -Some of the important personal factors that influence the buying behavior are age and stage in life cycle, lifestyle, economic situation, occupation, age, personality and self concept. It is obvious that the consumers change the purchase of goods and services with the passage of time. The occupation of a person has significant impact on his buying behavior.

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Methods of stimulating demand in market

Major factors influencing buying behavior

3. ***Psychological factors*** **-** There are four important psychological factors affecting the consumer buying behavior. These *are motivation, perception, learning, beliefs* and *attitudes.*

A *motive* is an internal force that directs a person's activities towards achieving a goal.

Perception is the process of selecting, organizing and interpreting information inputs to produce meaning.

Customer possesses specific *belief and attitude* towards various products. Since such *beliefs and attitudes* make up brand image and affect consumer buying behavior therefore marketers are interested in them.

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Market segmentation

It is the act of dividing a market into smaller groups of buyers with distinct needs, characteristics or behaviors who might require separate products or marketing mixes.

1. ***Geographic segmentation*** - Geographic segmentation calls for dividing the market into different geographical units such as nations, regions, states, countries, cities or even neighborhoods.

2. ***Age and life cycle segmentation*** - Age and life cycle segmentation divides the market into different age and life-cycle groups offering different products or using different marketing approaches for different age and life-cycle groups.

3. ***Gender segmentation-*** Gender segmentation divides a market into different groups based on gender. It has long been used in clothing, cosmetics, toiletries and magazines.

4. ***Income segmentation-*** Income segmentation divides a market into different income groups. It has long been used by the marketers of products such as automobiles, financial services and travel.

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Target marketing

Market targeting is the process of evaluating each market segments' attractiveness and select one or more market segments to enter. In other words, a target market is a group of customers at whom the organization specifically intends to aim its marketing efforts. A target market consists of a set of buyers who share common needs or characteristics that the company decides to serve.

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Market positioning

Market positioning is the process of setting the competitive positioning for the product and creating a detailed marketing mix. In other words, positioning consists of arranging for a market offering to occupy a clear, distinctive and desirable place relative to competing products in the minds of customers.

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Marketing research vs. Market research

These terms often are used interchangeably, but technically there is a difference.

Market research deals specifically with the gathering of information about a market's size and trends. Market research is a narrower concept because it is research focused on a specific market.

Marketing research covers a wider range of activities. While it may involve market research, marketing research is a more general process that can be applied to a variety of marketing problems such as research into new products, modes of distribution, product development etc. It can also include promotion research, pricing, advertising and public relations.

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Marketing research vs. Market research

Both concepts are integral parts of marketing, which is essentially everything that happens before the sale of a product or service. Though they have different purposes, both provide opportunities for asking questions, finding answers and using those answers to be a better marketer. Because ***Market Research is a subset of Marketing Research,*** it is easy to see why the two terms are often confused. They are both related to each other in great extent and are widely practiced.

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