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(CIN U80904AS2020OPC020468)

Registered Under MSME, Govt. of India. (UAN- AS04D0000207).

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TOPIC1:QUANTITATIVE TECHNIQUES

TOPIC2:MANAGEMENT INFORMATION SYSTEM TOPIC

3: BUSINESS LAW

TOPIC4:MARKETING MANAGEMENT

TOPIC 5: INDUSTRIAL TRAINING

PRACTICAL LAB ASSIGNMENT & VIVA VOICE



QUANTITATIVE TECHNIQUES

Meaning and Definition:

Quantitative techniques may be defined as those techniques which provide the decision maker a systematic and powerful means of analysis, based on quantitative data. It is a scientific method employed for problem solving and decision making by the management. With the help of quantitative techniques, the decision maker is able to explore policies for attaining the predetermined objectives. In short, quantitative techniques are inevitable in decision-making process.

Classification of Quantitative Techniques:

There are different types of quantitative techniques. We can classify them into three categories. They are:

1. Mathematical Quantitative Techniques
2. Statistical Quantitative Techniques
3. Programming Quantitative Techniques

Mathematical Quantitative Techniques:

A technique in which quantitative data are used along with the principles of mathematics is known as mathematical quantitative techniques. Mathematical quantitative techniques involve:

1. Permutations and Combinations:

Permutation means arrangement of objects in a definite order. The number of Arrangements depends upon the total number of objects and the number of objects taken at a time

for arrangement. The number of permutations or arrangements is calculated by using the following formula:-

$$=n!$$

$$nr!$$

Combination means selection or grouping objects without considering their order. The number of combinations is calculated by using the following formula:-

$$=n!nr!$$

2. Set Theory:-

Set theory is a modern mathematical device which solves various types of critical problems.

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Matrix Algebra:

Matrix is an orderly arrangement of certain given numbers or symbols in rows and columns. It is a mathematical device of finding out the results of different types of algebraic operations on the basis of the relevant matrices.

4. Determinants:

It is a powerful device developed over the matrix algebra. This device is used for finding out values of different variables connected with a number of simultaneous equations.

5. Differentiation:

It is a mathematical process of finding out changes in the dependent variable with reference to a small change in the independent variable.

6. Integration:

Integration is the reverse process of differentiation.

7. Differential Equation:

It is a mathematical equation which involves the differential coefficients of the dependent variables.

Statistical Quantitative Techniques:

Statistical techniques are those techniques which are used in conducting the statistical enquiry concerning to certain Phenomenon. They include all the statistical methods beginning from the collection of data till interpretation of those collected data.

Statistical techniques involve:

1. Collection of data:

One of the important statistical methods is collection of data. There are different methods for collecting primary and secondary data.

2. Measures of Central tendency, dispersion, skewness and Kurtosis

Measures of Central tendency is a method used for finding the average of a series while measures of dispersion used for finding out the variability in a series. Measures of Skewness measures asymmetry of a distribution while measures of Kurtosis measures the flatness of peakedness in a distribution.

3. Correlation and Regression Analysis:

Correlation is used to study the degree of relationship among two or more variables. On the other hand, regression technique is used to estimate the value of one variable for a given value of another.

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4. Index Numbers:

Index numbers measure the fluctuations in various Phenomena like price, production etc over a period of time, They are described as economic barometers.

5. Timeseries Analysis:

Analysis of timeseries helps us to know the effect of factors which are responsible for Changes:

6. Interpolation and Extrapolation:

Interpolation is the statistical technique of estimating under certain assumptions, the missing figures which may fall within the range of given figures. Extrapolation provides estimated figures outside the range of given data.

7. Statistical Quality Control

Statistical quality control is used for ensuring the quality of items manufactured. The variations in quality because of assignable causes and chance causes can be known with the help of this tool. Different control charts are used in controlling the quality of products.

8. Ratio Analysis:

Ratio analysis is used for analyzing financial statements of any business or industrial concerns which help to take appropriate decisions.

9. Probability Theory:

Theory of probability provides numerical values of the likelihood of the occurrence of events.

10. Testing of Hypothesis

Testing of hypothesis is an important statistical tool to judge the reliability of inferences drawn on the basis of sample studies. **Programming Techniques:**

Programming techniques are also called operations research techniques. Programming techniques are model building techniques used by decision makers in modern times.

Programming techniques involve:

1. Linear Programming:

Linear programming technique is used in finding a solution for optimizing a given objective under certain constraints.

2. Queuing Theory:

Queuing theory deals with mathematical study of queues. It aims at minimizing cost of both servicing and waiting.

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3. Game Theory:

Game theory is used to determine the optimum strategy in a competitive situation.

4. Decision Theory:

This is concerned with making sound decisions under conditions of certainty, risk and uncertainty. 5.

Inventory Theory:

Inventory theory helps for optimizing the inventory levels. It focuses on minimizing cost associated with holding of inventories.

6. Network programming:

It is a technique of planning, scheduling, controlling, monitoring and co-ordinating large and complex projects comprising of a number of activities and events. It serves as an instrument

in resource allocation and adjustment of time and cost up to the optimum level. It includes CPM, PERT etc.

7. Simulation:

It is a technique of testing a model which resembles real life situations.

Replacement Theory:

It is concerned with the problems of replacement of machines, etc due to their deteriorating efficiency or breakdown. It helps to determine the most economic replacement policy.

9. NonLinear Programming:

It is a programming technique which involves finding an optimum solution to a problem in which some or all variables are non-linear.

10. Sequencing:

Sequencing tool is used to determine a sequence in which given jobs should be performed by minimizing the total efforts.

11. Quadratic Programming:

Quadratic programming technique is designed to solve certain problems, the objective function of which takes the form of a quadratic equation.

12. Branch and Bound Technique

It is a recently developed technique. This is designed to solve the combinatorial problems of decision making where there are a large number of feasible solutions. Problems of plant location, problems of determining minimum cost of production etc. are examples of combinatorial problems.

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Functions of Quantitative Techniques:

The following are the important functions of quantitative techniques:

1. To facilitate the decision-making process
2. To provide tools for scientific research
3. To help in choosing an optimal strategy
4. To enable proper deployment of resources
5. To help in minimizing costs
6. To help in minimizing the total processing time required for performing a set of jobs

USES OF QUANTITATIVE TECHNIQUES IN Business and Industry

Quantitative techniques render valuable services in the field of business and industry. Today, all decisions in business and industry are made with the help of quantitative techniques.

Some important uses of quantitative techniques in the field of business and industry are given below:

1. Quantitative techniques of linear programming are used for optimal allocation of scarce resources in the problem of determining product mix
2. Inventory control techniques are useful in deciding when and how much items are to be purchased so as to maintain a balance between the cost of holding and cost of ordering the inventory

3. Quantitative techniques of CPM, and PERT helps in determining the earliest and the latest times for the events and activities of a project. This helps the management in proper deployment of resources.
4. Decision tree analysis and simulation technique help the management in taking the best possible course of action under the conditions of risks and uncertainty.
5. Queuing theory is used to minimize the cost of waiting and servicing of the customers in queues.
6. Replacement theory helps the management in determining the most economic replacement policy regarding replacement of an equipment.

Limitations of Quantitative Techniques:

Even though the quantitative techniques are inevitable in decision-making process, they are not free from shortcomings. The following are the important limitations of quantitative techniques:

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CORRELATION ANALYSIS Introduction:

In practice, we may come across with a lot of situations which need statistical analysis of either one or more variables. The data concerned with one variable only is called univariate data. For example: Price, income, demand, production, weight, height, market etc. are concerned with one variable only. The analysis of such data is called univariate analysis.

The data concerned with two variables are called bivariate data. For example: rainfall and agriculture; income and consumption; price and demand; height and weight etc. The analysis of these two sets of data is called bivariate analysis.

The data concerned with three or more variables are called multivariate data. For example: agricultural production is influenced by rainfall, quality of soil, fertilizer etc. The statistical technique which can be used to study the relationship between two or more variables is called correlation analysis. **Definition:**

Two or more variables are said to be correlated if the change in one variable results in a corresponding change in the other variable.

According to Simpson and Kafka, "Correlation analysis deals with the association between two or more variables".

Lunchoud defines, "Correlation analysis attempts to determine the degree of relationship between variables".

Boddington states that "Whenever some definite connection exists between two or more groups or classes of series of data, there is said to be correlation."

In nutshell, correlation analysis is an analysis which helps to determine the degree of relationship exists between two or more variables.

Correlation Coefficient:

Correlation analysis is actually an attempt to find a numerical value to express the extent of relationship exists between two or more variables. The numerical measurement showing the degree of correlation between two or more variables is called correlation coefficient. Correlation coefficient ranges between -1 and +1.

SIGNIFICANCE OF CORRELATION ANALYSIS

Correlation analysis is of immense use in practical life because of the following reasons: 1.

Correlation analysis helps us to find a single figure to measure the degree of relationship exists between the variables.

2. Correlation analysis helps to understand the economic behavior.

3. Correlation analysis enables the business executives to estimate cost, price and other variables.
4. Correlation analysis can be used as a basis for the study of regression. Once we know that two variables are closely related, we can estimate the value of one variable if the value of other is known.
5. Correlation analysis helps to reduce the range of uncertainty associated with decision making. The prediction based on correlation analysis is always near to reality.
6. It helps to know whether the correlation is significant or not. This is possible by comparing the correlation coefficient with 6PE. If r is more than 6PE, the correlation is significant.

Classification of Correlation

Correlation can be classified in different ways. The following are the most important classifications

1. Positive and Negative correlation
2. Simple, partial and multiple correlation
3. Linear and Non-linear correlation

Positive and Negative Correlation

Positive Correlation

When the variables are varying in the same direction, it is called positive correlation. In other words, if an increase in the value of one variable is accompanied by an increase in the value of other variable or if a decrease in the value of one variable is accompanied by a decrease in the value of other variable, it is called positive correlation.

E.g.: 1) A: 10 20 30 40 50

B: 80 100 150 170 200

2) X: 78 60 52 46 38 Y:
2018 14 10 5

Negative Correlation:

When the variables are moving in opposite direction, it is called negative correlation. In other words, if an increase in the value of one variable is accompanied by a decrease in the value of other variable or if a decrease in the value of one variable is accompanied by an increase in the value of other variable, it is called negative correlation.

E.g.: 1) A: 5 10 15 20 25 B:
16 10 8 6 2

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2) X: 40 32 25 20 10
Y: 235 8 12

Simple, Partial and Multiple correlation

Simple Correlation

In a correlation analysis, if only two variables are studied it is called simple correlation.

E.g. the study of the relationship between price & demand, of a product or price and supply of a product is a problem of simple correlation.

Multiple correlation

In a correlation analysis, if three or more variables are studied simultaneously, it is called multiple correlation. For example, when we study the relationship between the yield of rice with both rainfall and fertilizer together, it is a problem of multiple correlation.

Partial correlation

In a correlation analysis, we recognize more than two variables, but consider one dependent variable and one independent variable and keep the other independent variables as constant.

For example, yield of rice is influenced by the amount of rainfall and the amount of fertilizer used.

But if we study the correlation between yield of rice and the amount of rainfall by keeping the amount of fertilizers used as constant, it is a problem of partial correlation.

Linear and Non-linear correlation

Linear Correlation

In a correlation analysis, if the ratio of change between the two sets of variables is same, then it is called linear correlation.

For example, when 10% increase in one variable is accompanied by 10% increase in the other variable, it is the problem of linear correlation.

X: 10 15 30 60

Y: 50 75 150 300

Here the ratio of change between X and Y is the same. When we plot the data on graph paper, all the plotted points would fall on a straight line.

Non-linear correlation

In a correlation analysis, if the amount of change in one variable does not bring the same ratio of change in the other variable, it is called non-linear correlation.

X: 246 10 15

Y: 810 182 226

Here the change in the value of X does not bring the same proportionate change in the value of Y.

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This is the problem of non-linear correlation, when we plot the data on a graph paper, the plotted points would not fall on a straight line.

Degrees of correlation:

Correlation exists in various degrees

1. Perfect positive correlation

If an increase in the value of one variable is followed by the same proportion of increase in other related variable or if a decrease in the value of one variable is followed by the same proportion of decrease in other related variable, it is perfect positive correlation. eg: if 10% rise in price of a commodity results in 10% rise in its supply, the correlation is perfectly positive. Similarly, if 5% fall in price results in 5% fall in supply, the correlation is perfectly positive.

2. Perfect Negative correlation

If an increase in the value of one variable is followed by the same proportion of decrease in other related variable or if a decrease in the value of one variable is followed by the same proportion of increase in other related variable, it is Perfect Negative Correlation. For example, if 10% rise in price results in 10% fall in its demand, the correlation is perfectly negative. Similarly, if 5% fall in price results in 5% increase in demand, the correlation is perfectly negative.

3. Limited Degree of Positive correlation:

When an increase in the value of one variable is followed by a non-proportional increase in other related variable, or when a decrease in the value of one variable is followed by a no

proportional decrease in other related variable, it is called limited degree of positive correlation. For example, if 10% rise in price of a commodity results in 5% rise in its supply, it is limited degree of positive correlation. Similarly if 10% fall in price of a commodity results in

5%

fall in its supply, it is limited degree of positive correlation.

4. Limited degree of Negative correlation

When an increase in the value of one variable is followed by a non-proportional decrease in other related variable, or when a decrease in the value of one variable is followed by a non-proportional increase in other related variable, it is called limited degree of negative correlation.

For example, if 10% rise in price results in 5% fall in its demand, it is limited degree of negative correlation. Similarly, if 5% fall in price results in 10% increase in demand, it is limited degree of negative correlation.

5. Zero Correlation (Zero Degree correlation)

If there is no correlation between variables it is called zero correlation. In other words, if the values of one variable cannot be associated with the values of the other variable, it is zero correlation.

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Methods of measuring correlation

Correlation between 2 variables can be measured by graphic methods and algebraic methods. I

Graphic Methods

- 1) Scatter Diagram
- 2) Correlation graph

II Algebraic methods (Mathematical methods or statistical methods or Co-efficient of correlation methods):

- 1) Karl Pearson's Co-efficient of correlation
- 2) Spearman's Rank correlation method
- 3) Concurrent deviation method

Scatter Diagram

This is the simplest method for ascertaining the correlation between variables. Under this method all the values of the two variables are plotted in a chart in the form of dots.

Therefore, it is

also known as dot chart. By observing the scatter of the various dots, we can form an idea that whether the variables are related or not.

A scatter diagram indicates the direction of correlation and tells us how closely the two variables under study are related. The greater the scatter of the dots, the lower is the relationship Y

X
X
X
X
X
X
X
X
X
0 X

Perfect Positive Correlation

Y
X
X
X
X
X
X
X
X

Merits of Scatter Diagram method

1. It is a simple method of studying correlation between variables.
2. It is a non-mathematical method of studying correlation between the variables. It does not require any mathematical calculations.



3. It is very easy to understand. It gives an idea about the correlation between variables even to a layman.
4. It is not influenced by the size of extreme items.
5. Making a scatter diagram is, usually, the first step in investigating the relationship between two variables.

Demerits of Scatter Diagram Method

1. It gives only a rough idea about the correlation between variables.
2. The numerical measurement of correlation coefficient cannot be calculated under this method.
3. It is not possible to establish the exact degree of relationship between the variables.

Correlation Graph Method

Under correlation graph method the individual values of the two variables are plotted on a graph paper. Then dots relating to these variables are joined separately so as to get two curves. By examining the direction and closeness of the two curves, we can infer whether the variables are related or not. If both the curves are moving in the same direction (either upward or downward) correlation is said to be positive. If the curves are moving in the opposite directions, correlation is said to be negative.

Merits of Correlation Graph Method

1. This is a simple method of studying relationship between the variable
2. This does not require mathematical calculations.
3. This method is very easy to understand

Demerits of correlation graph method:

1. A numerical value of correlation cannot be calculated.
2. It is only a pictorial presentation of the relationship between variables.
3. It is not possible to establish the exact degree of relationship between the variables.

Karl Pearson's Co-efficient of Correlation

Karl Pearson's Coefficient of Correlation is the most popular method among the algebraic methods for measuring correlation. This method was developed by Prof. Karl Pearson in 1896. It is also called product moment correlation coefficient.

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Pearson's coefficient of correlation is defined as the ratio of the covariance between X and Y to the product of their standard deviations. This is denoted by 'r' or r_{xy}

$$r = \frac{\text{Covariance of X and Y}}{(\text{SD of X}) \times (\text{SD of Y})}$$

Interpretation of Co-efficient of Correlation

Pearson's Co-efficient of correlation always lies between +1 and -1. The following general rules will help to interpret the Co-efficient of correlation:

1. When $r = +1$, it means there is perfect positive relationship between variables.
2. When $r = -1$, it means there is perfect negative relationship between variables.
3. When $r = 0$, it means there is no relationship between the variables.
4. When 'r' is close to +1, it means there is high degree of positive correlation between variables.
5. When 'r' is close to -1, it means there is high degree of negative correlation between variables.
6. When 'r' is close to '0', it means there is less relationship between variables.

Properties of Pearson's Co-efficient of Correlation

1. If there is correlation between variables, the Co-efficient of correlation lies between +1 and -1.

2. If there is no correlation, the coefficient of correlation is denoted by zero (i.e. $r=0$)
3. It measures the degree and direction of change
4. It simply measures the correlation and does not help to predict causation.
5. It is the geometric mean of two regression co-efficients.

i.e. $r = \dots$

Computation of Pearson's Co-efficient of correlation:

Pearson's correlation co-efficient can be computed in different ways. They are: a Arithmetic mean method b Assumed mean method c Direct method **Arithmetic mean method:-**

Under arithmetic mean method, co-efficient of correlation is calculated by taking actual mean.

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$r =$
or
 $r =$

where $x = \dots$ and $y = \dots$

Calculate Pearson's co-efficient of correlation between age and playing habits of students: Age: 20 21 22 23 24 25

No. of students 500 400 300 240 200 160

Regular players 400 300 180 96 60 24

Let $X =$ Age and $Y =$ Percentage of regular players

Percentage of regular players can be calculated as follows:- 400×100

$= 80$; $300 \times 100 = 75$; $180 \times 100 = 60$; $96 \times 100 = 40$,

500 400 300 240

$100 = 30$; and

$100 \quad 15$

Pearson's Coeff

icient of
Correlation (r) =

$\frac{\Sigma xy}{\Sigma x \Sigma y}$

Computation of Pearson's Coefficient of correlation

Age x

% of

Regular

Playery y

$(x - 22.5)$

$(y - 50)$

)

20 80 -2.5 30 -75.0 6.25 900

21 75 -1.5 25 -37.5 2.25 625

22 60 -0.5 10 -5.0 0.25 100

23 40 0.5 -10 -5.0 0.25 100

24 30 1.5 -20 -30.0 2.25 400

25 15 2.5 -35 -87.5 6.25 1225

135 300 -240 17.50 3350

==



=22.5

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=

==

50r =

$\sqrt{\cdot} =$

$\sqrt{\cdot} = \sqrt{\cdot} = -0.9912$

Assumed mean method:

Under assumed mean method, correlation coefficient is calculated by taking assumed mean only. $r =$

Where $dx =$ deviations of X from its assumed mean; $dy =$ deviations of y from its assumed mean

Find out coefficient of correlation between size and defect in quality of shoes: Size :

15-16 16-17 17-18 18-19 19-20 20-21

No. of shoes

Produced: 200270340360400300

No. of defectives: 150162170180180114 Let $x =$

$=$ size (ie mid-values) $y =$

$=$ percentage of defectives

x values are 15.5, 16.5, 17.5, 18.5, 19.5 and 20.5

y values are 75, 60, 50, 50, 45 and 38 Take

assumed mean: $x = 17.5$ and $y = 50$

Computation of Pearson's Coefficient of Correlation

$\sum xy$ $\sum dx$ $\sum dy$ $\sum dx^2$ $\sum dy^2$ 15.575-225-50 4625

16.560-110-101 100

17.5 50000 00

18.5 50100 10

19.5452-5-10 425

20.5383-12-369 144

3

18

106

19

894

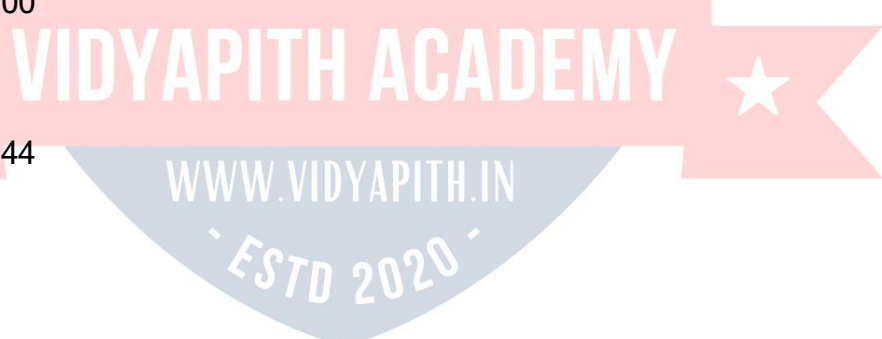
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Education Quantitative Techniques for Busi

ness 21r

=

$\sqrt{r} =$

=



=

=

. = -0.9485 Direct

Method:

Under direct method, coefficient of correlation is calculated without taking actual mean or assumed mean $r =$

From the following data, compute Pearson's correlation coefficient:

Price : 10 12 14 15 19

Demand (Qty) 40 41 48 60 50

Let us take price = x and demand = y

Computation of Pearson's Coefficient of Correlation

Price

(x)

Demand

(y) $\sum xy$ $\sum x^2$ $\sum y^2$

10 40 100 1600

12 41 144 1681

14 48 196 2304

15 60 225 3600

19 50 361 2500

$\sum = 70 = 239$ $\sum xy = 3414$ $\sum x^2 = 1026$ $\sum y^2 = 11685$

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Quantitative Techniques for Business 22 $r =$

=

$r =$

$r =$

”

$\sqrt{\frac{1}{n} \sum xy - \frac{\sum x \sum y}{n^2}} = \pm 0.621$

Probable Error and Coefficient of Correlation

Probable error (PE) of the Co-efficient of correlation is a statistical device which measures the reliability and dependability of the value of co-efficient of correlation. Probable Error =

standard error

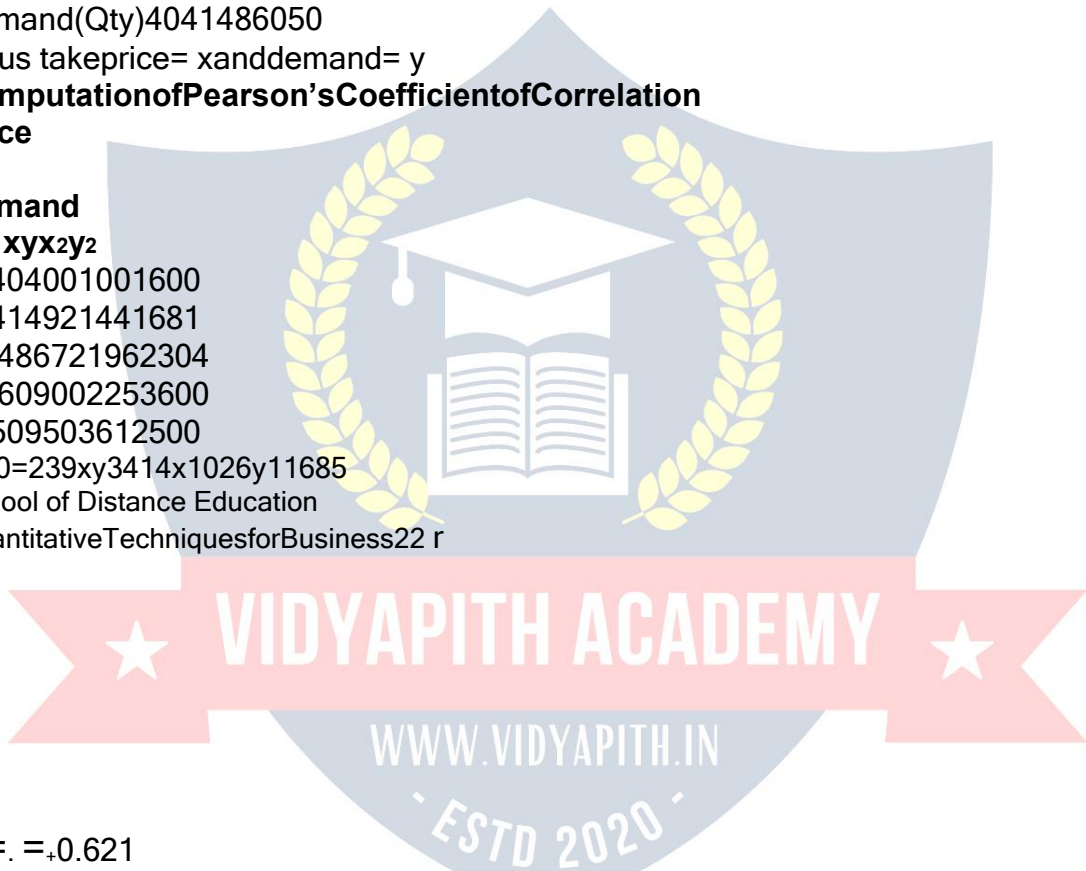
$= 0.6745 \times \text{standard error}$

Standard Error (SE) =

$\sqrt{\frac{1}{n} \sum xy - \frac{\sum x \sum y}{n^2}}$

PE = 0.674512

$\sqrt{\frac{1}{n} \sum xy - \frac{\sum x \sum y}{n^2}}$



If the value of coefficient of correlation (r) is less than the PE, then there is no evidence of correlation.

If the value of ' r ' is more than 6 times of PE, the correlation is certain and significant. By adding and subtracting PE from coefficient of correlation, we can find out the upper and lower limits within which the population coefficient of correlation may be expected to lie. **Uses of PE:**

1) PE is used to determine the limits within which the population coefficient of correlation may be expected to lie.

2) It can be used to test whether the value of correlation coefficient of a sample is significant with that of the population

If $r=0.6$ and $N=64$, find out the PE and SE of the correlation coefficient. Also determine the limits of population correlation coefficient.

Sol: $r=0.6$ $N=64$

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PE = $0.6745SE$

SE =

$\sqrt{\quad}$

=

$\sqrt{\quad}$

= 0.08

P.E = 0.6745×0.08

= 0.05396

Limits of population Correlation coefficient = $r \pm PE$

= 0.60 ± 0.05396

= 0.54604 to 0.6540

Qn. 2 and PE have values 0.9 and 0.04 for two series. Find n . Sol: PE

= 0.04

0.6745

$\sqrt{0.04}$

.

$\sqrt{\quad}$

.

.

$\sqrt{\quad} = 0.0593$

$\sqrt{\quad} = 0.0593$

$0.0593 \sqrt{\quad} = 0.19$

$\sqrt{\quad}$

$\sqrt{3.2}$

$N = 3.2 = 10.266$

$N = 10$

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Coefficient of Determination



One very convenient and useful way of interpreting the value of coefficient of correlation is the use of the square of coefficient of correlation. The square of coefficient of correlation is called coefficient of determination.

Coefficient of determination = r^2

Coefficient of determination is the ratio of the explained variance to the total variance. For example, suppose the value of $r = 0.9$, then $r^2 = 0.81 = 81\%$

This means that 81% of the variation in the dependent variable has been explained by (determined by) the independent variable. Here 19% of the variation in the dependent variable

has not been explained by the independent variable. Therefore, this 19% is called coefficient of non-determination.

Coefficient of non-determination (K_2) = $1 - r^2$

$K_2 = 1 - \text{coefficient of determination}$

Qn: Calculate coefficient of determination and non-determination if coefficient of correlation is 0.8 Sol:- $r = 0.8$

Coefficient of determination =

$= 0.8^2 = 0.64 = 64\%$

Coefficient of non-determination = $1 -$

$= 1 - 0.64$

$= 0.36$

$= 36\%$

Merits of Pearson's Coefficient of Correlation:-

1. This is the most widely used algebraic method to measure coefficient of correlation.
2. It gives an numerical value to express the relationship between variables
3. It gives both direction and degree of relationship between variables
4. It can be used for further algebraic treatments such as coefficient of determination coefficient of non-determination etc.
5. It gives a single figure to explain the accurate degree of correlation between two variables

Demerits of Pearson's Coefficient of correlation

1. It is very difficult to compute the value of coefficient of correlation.
2. It is very difficult to understand
3. It requires complicated mathematical calculations
4. It takes more time
5. It is unduly affected by extreme items
6. It assumes a linear relationship between the variables. But in real life situation, it may not be so.

Spearman's Rank Correlation Method

Pearson's coefficient of correlation method is applicable when variables are measured in quantitative form. But there were many cases where measurement is not possible because of the Qualitative nature of the variable. For example, we cannot measure the beauty, morality, intelligence, honesty etc in quantitative terms. However it is possible to rank these qualitative characteristics in some order.

The correlation coefficient obtained from ranks of the variables instead of their quantitative measurement is called rank correlation. This was developed by Charles Edward Spearman in 1904.

Spearman's coefficient correlation (R) = $1 -$

Where D = difference of ranks between the two variables
 N = number of pairs

Qn: Find the rank correlation coefficient between poverty and overcrowding from the information given below: Town: A B C D E F G H I J

Poverty: 17 13 15 16 6 11 14 9 7 12

Overcrowding: 36 46 35 24 12 18 27 22 28

Sol: Here ranks are not given. Hence we have to assign ranks

$R = 1 -$

$N = 10$

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Computation of Rank Correlation Co-efficient

Town Poverty Overcrowding R_1 R_2 D D^2

A 17 36 1 21 1

B 13 46 5 14 16

C 15 35 3 0 0

D 16 24 2 5 39

E 6 12 10 8 24

F 11 18 7 0 0

G 14 27 4 0 0

H 9 22 8 6 24

I 7 29 10 1 1

J 12 8 6 9 39

44

$R = 1 -$

$= 1 -$

$= 1 - 0.2667$

$=$

$+ 0.7333$

Qn:- Following were the ranks given by three judges in a beauty context. Determine which pair of judges has the nearest approach to Common tastes in beauty.

Judge I: 165 10 32 49 7 8

Judge II: 358 47 10 216 9

Judge III: 64 98 1 23 105 7

$R = 1 -$

$N = 10$

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Computation of Spearman's Rank Correlation Coefficient

Judge I
(R_1)

Judge II
(R_2)

(R_2)

Judge III
(R_3)

(R_3)

R₁-
 R₂(D₁)
 R₂-
 R₃(D₂)
 R₁-R₃(D₃)

1362354 925
 6541121 14
 5893149 116
 10 4 8 64 236164
 37146216 364
 2102 88 064640
 4232114 11
 9 1 1089 164811
 7 65112114
 8 97121141
 20021460
 R = 1-

Rank correlation coefficient between I & II =

= 1-
 = 1-1.2121
 = -0.2121

Rank correlation Coefficient between I & III judges = 1-

= 1-
 = -0.297

Rank correlation coefficient between I & II judges = 1-

= 1

= 1-0.364
 = +0.636

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The rank correlation coefficient in case of I & III judges is greater than the other two pairs. Therefore, judges I & III have highest similarity of thought and have the nearest approach to common taste in beauty.

Qn: The Co-efficient of rank correlation of the marks obtained by 10 students in statistics & English was 0.2. It was later discovered that the difference in ranks of one of the students was wrongly taken as 7 instead of 9. Find the correct result. R = 0.2

R = $\frac{1}{-62}$

$$=0.2$$

. =

$$10 \times 10.$$

=

$$6 \Sigma = 900.8 = 792$$

$$\text{Correct } \Sigma =$$

$$= 132 - 7 + 9$$

$$= 164$$

$$\text{Correct } R_1 =$$

$$= 1 -$$

$$= 1 -$$

$$= 1 - 0.9939$$

$$= 0.0061$$

Qn: The coefficient of rank correlation between marks in English and maths obtained by a group of students is 0.8. If the sum of the squares of the difference in ranks is given to be 33, find the number of students in the group.

Sol: $R = 1 -$

$$= 0.8 \text{ i.e., } 1 -$$

$$= 0.8$$

$$1 - 0.8 =$$

$$0.2(-N) = 198$$

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$$N_3 - N =$$

$$.990$$

$$N = 10$$

Computation of Rank Correlation Coefficient when Ranks are Equal

There may be chances of obtaining same rank for two or more items. In such a situation, it is required to give average rank for all. Such items. For example, if two observations got 4th rank, each of those observations should be given the rank 4.5 (i.e. 4.5)

Suppose 4 observations got 6th rank, here we have to assign the rank, 7.5 (i.e.

to each of the 4 observations.

When there is equal ranks, we have to apply the following formula to compute rank correlation coefficient: - $R = 1 -$

.....

Where D - Difference of rank in the two series N -

Total number of pairs

m - Number of times each rank repeats

Q_n :- Obtain rank correlation co-efficient for the data :- X

: 68 64 75 50 64 80 75 40 55 64

Y : 62 58 68 45 81 60 68 48 50 70

Here, ranks are not given we have to assign ranks. Further, this is the case of equal ranks. $R = 1 -$

$\frac{6 \sum 2}{3}$

123.....

3

$R = 1 -$

.....

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Computation of rank correlation coefficient r_{xy}

$R_1 \ R_2 \ D \ (R_1 - R_2)^2 \ D^2$

68 62 4 5 11

64 58 6 7 11

75 68 2.5 3.5 11

50 45 9 10 11

54 81 6 1 5 25

80 60 1 6 5 25

75 68 2.5 3.5 11

40 48 10 9 11

55 50 8 0 0

64 70 6 2 4 16

$\sum 72 \ R = 1 -$

$= 1 -$

$= 1 -$

$= 1 -$

$= 1 -$

$= 1 - 0.4545$

$= 0.5455$



Merits of Rank Correlation method

1. Rank correlation coefficient is only an approximate measure as the actual values are not used for calculations
2. It is very simple to understand the method.
3. It can be applied to any type of data, i.e. quantitative and qualitative
4. It is the only way of studying correlation between qualitative data such as honesty, beauty etc.
5. As the sum of rank differences of the two qualitative data is always equal to zero, this method facilitates a cross check on the calculation.

Demerits of Rank Correlation method

1. Rank correlation coefficient is only an approximate measure as the actual values are not used for calculations.
2. It is not convenient when number of pairs (i.e. N) is large
3. Further algebraic treatment is not possible.
4. Combined correlation coefficient of different series cannot be obtained as in the case of mean and standard deviation. In case of mean and standard deviation, it is possible to compute combined arithmetic mean and combined standard deviation.

Concurrent Deviation Method:

Concurrent deviation method is a very simple method of measuring correlation. Under this method, we consider only the directions of deviations. The magnitudes of the values are completely ignored. Therefore, this method is useful when we are interested in studying correlation between two variables in a casual manner and not interested in degree (or precision). Under this method, the nature of correlation is known from the direction of deviation in the values of variables. If deviations of 2 variables are concurrent, then they move in the same direction, otherwise in the opposite direction.

The formula for computing the coefficient of concurrent deviation is:- $r =$

=

Where N = No. of pairs of symbol

C = No. of concurrent deviations (i.e., No. of + signs in 'dx dy' column) **Steps:**

1. Every value of 'X' series is compared with its preceding value. Increase is shown by '+' symbol and decrease is shown by '-'
2. The above step is repeated for 'Y' series and we get 'dy'
3. Multiply 'dx' by 'dy' and the product is shown in the next column. The column heading is 'dx dy'.
4. Take the total number of '+' signs in 'dx dy' column. '+' signs in 'dx dy' column denotes the concurrent deviations, and it is indicated by 'C'.
5. Apply the formula: $r =$

If 2c, 2, .

Qn:- Calculate coefficient of correlation by concurrent deviation method:- Year

:2003 2004 2005 2006 2007 2008 2009 2010 2011

Supply: 160164172182166170178192186

Price: 292280260234266254230190200

Sol: Computation of coefficient of concurrent Deviation

Supply(x) Price(y) dx dy dx dy 160

292 + - -

164280+- -

172260+- -

182234+- -

166266- + -

170254+- -

178230+- -

192190+- -

186200-+-C=

Or=

=

=

==

=-1

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Quantitative _____

It is very easy to calculate coefficient of correlation

2. It is very simple to understand the method

3. When the number of items is very large, this method may be used to form a quick idea about the degree of relationship

4. This method is more suitable, when we want to know the type of correlation (ie, whether positive or negative).

Demerit of concurrent deviation method:

1. This method ignores the magnitude of changes. i.e. Equal weight is given for small and big changes.

2. The result obtained by this method is only a rough indicator of the presence or absence of correlation

3. Further algebraic treatment is not possible

4. Combined coefficient of concurrent deviation of different series cannot be found as in the case of arithmetic mean and standard deviation.

MANAGEMENT INFORMATION SYSTEM

A **management information system (MIS)** provides information that organizations require to manage themselves efficiently and effectively. Management information systems are typically computer systems used for managing. The five primary components: 1.) Hardware,

2.) Software,

- 3.) Data (information for decision making),
- 4.) Procedures (design, development and documentation), and
- 5.) People (individuals, groups, or organizations).

Management information systems are distinct from other information systems because they are used to analyze and facilitate strategic and operational activities. Academically, the term is commonly used to refer to the study of how individuals, groups, and organizations evaluate, design, implement, manage, and utilize systems to generate information to improve efficiency and effectiveness of decision making, including systems termed decision support systems, expert systems, and executive information systems

Most business schools (or colleges of business administration within universities) have an MIS department, along with departments of accounting, finance, management, marketing, and sometimes others, and grant degrees (at undergraduate, masters, and PhD levels) in MIS.

A MIS gives business managers the information they need to make decisions and solve problems, while facilitating data from different aspects of a project.^[3] Early business computers were used for simple operations such as tracking inventory, billing, sales, or payroll data, with little detail or structure^[4] (see EDP).

Over time, these computer applications became more complex and previously isolated applications, such as card systems and magnetic storage, became connected in the 1980s and allowed away to network the information together. With greater computing capability and the networks to link the necessary information, MIS became a standard among many companies.^[5]

Originally, MIS described applications providing managers with information about sales, inventories, and other data that would help in managing the enterprise.

Over time, the term broadened to include: decision support systems, resource management and human resource management, enterprise resource planning, enterprise performance management, supply chain management, customer relationship management, project management and database retrieval applications.

Management information systems encompass a broad and complex topic.

To make this topic more manageable, boundaries will be defined. First, because of the vast number of activities relating to management information systems, a total review is not possible. Those discussed here is only a partial sampling of activities, reflecting the author's viewpoint of the more common and interesting developments.

Likewise where there were multiple effects in a similar area of development, only selected ones will be used to illustrate concepts. This is not to imply one effort is more important than another.

Also, the main focus of this paper will be on information systems for use at the farm level and to some lesser extent systems used to support researchers addressing farm level problems (e.g., simulation or optimization models, geographic information systems, etc.) and those

used to support agribusiness firms that supply goods and services to agricultural producers and the supply chain beyond the production phase.

Secondly, there are several frameworks that can be used to define and describe management information systems. More than one will be used to discuss important concepts. Because more than one is used, it indicates the difficulty of capturing the key concepts of what is a management information system. Indeed, what is viewed as an effective and useful management information system in one environment may not be of use or value in another.

Lastly, the historical perspective of management information systems cannot be ignored. This perspective gives a sense of how these systems have evolved, been refined and adapted as new technologies have emerged, and how changing economic conditions and other factors have influenced the use of information systems.

Before discussing management information systems, some time-tested concepts should be reviewed. Davis offers a commonly used concept in his distinction between data and information. Davis defines data as raw facts, figures, objects, etc.

Information is used to make decisions. To transform data into information, processing is needed and it must be done while considering the context of a decision. We are often awash in data but lacking good information. However, the success achieved in supplying information to decision makers is highly variable.

Barabba, expands this concept by also adding inference, knowledge and wisdom in his modification of Haechel's hierarchy which places wisdom at the highest level and data at the lowest. As one moves up the hierarchy, the value is increased and volume decreased.

Thus, as one acquires knowledge and wisdom the decision making process is refined. Management information systems attempt to address all levels of Haechel's hierarchy as well as converting data into information for the decision maker.

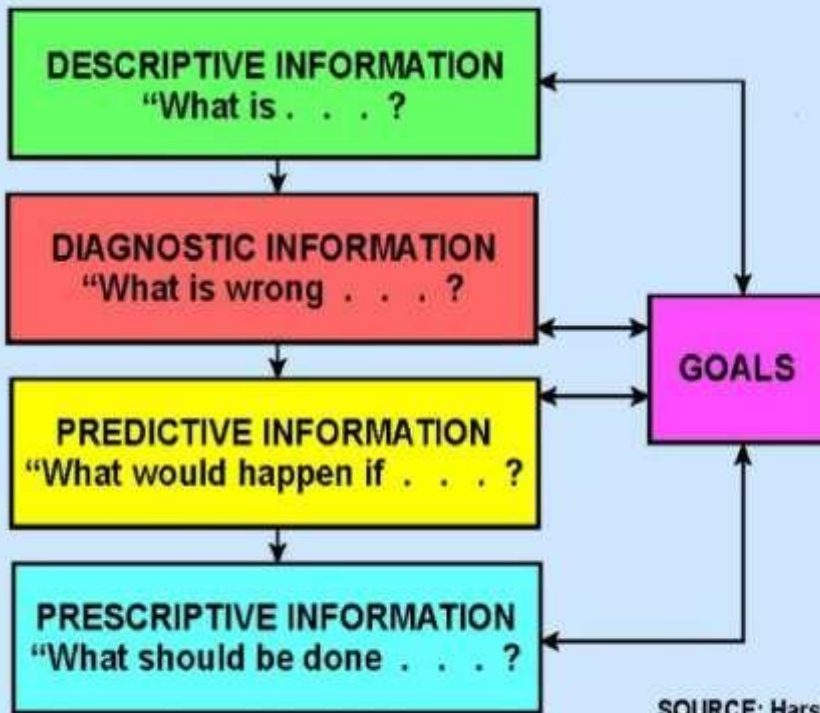
As both Barabba and Haechel argue, however, just supplying more data and information may actually be making the decision making process more difficult. Emphasis should be placed on increasing the value of information by moving up Haechel's hierarchy.

Another important concept from Davis and Olsen is the value of information. They note that "in general, the value of information is the value of the change in decision behavior caused by the information, less the cost of the information."

This statement implies that information is normally not a free good. Furthermore, if it does not change decisions to the better, it may have no value. Many assume that investing in a "better" management information system is a sound economic decision.

Since it is possible that the better system may not change decisions or the cost of implementing the better system is high to the actual realized benefits, it could be a bad

TYPES OF INFORMATION



investment. Also, since before the investment is made, it is hard to predict the benefits and costs of the better system, the investment should be viewed as one with risk associated with it.

Another approach for describing information systems is that proposed by Harsh and colleagues. They define information as one of four types and all these types are important component of a management information system. Furthermore, the various types build upon and interact with each other. A common starting level is Descriptive information. Information portrays the "what is" condition of a business, and it describes the state of the business at a specified point in time.

Descriptive information is very important to the business manager, because without it, many problems would not be identified.

Descriptive information includes a variety of types of information including financial results, production records, test results, product marketing, and maintenance records.

Descriptive information can also be used as inputs to secure other needed types of information. For example, "what is" information is needed for supplying restraints in analyzing farm adjustment alternatives.

It can also be used to identify problems other than the "what is" condition. Descriptive information is necessary but not completely sufficient in identifying and addressing farm management problems.

The second type of information is diagnostic information. This information portrays this "what is wrong" condition, where "what is wrong" is measured as the disparity between "what is" and "what ought to be."

This assessment of how things are versus how they should be (a fact-value conflict) is probably our most common management problem. Diagnostic information has two major uses. It can first be used to define problems that develop in the business.

Are production levels too low? Is the rate earned on investment too low? These types of question cannot be answered with descriptive information alone (such as with financial and production records).

A manager may often be well supplied with facts about his business, yet be unable to recognize this type of problem. The manager must provide norms or standards which, when compared with the facts for a particular business, will reveal an area of concern.

Once a problem has been identified, a manager may choose an appropriate course of action for dealing with the problem (including doing nothing). Corrective measures may be taken so as to better achieve the manager's goals.

Several pitfalls are involved for managers in obtaining diagnostic information. Adequate, reliable, descriptive information must be available along with appropriate norms or standards for particular business situations. Information is inadequate for problem solving if it does not fully describe both "what is" and "what ought to be."

As description is concerned with "what is" and diagnostics with "what is wrong," prediction is concerned with "what if...?" Predictive information is generated from an analysis of possible future events and is exceedingly valuable with "desirable" outcomes. With predictive information, one either defines problems or avoids problems in advance. Prediction also assists in analysis.

When a problem is recognized, a manager will analyze the situation and specify at least one alternative (including doing nothing) to deal with it.

Predictive information is needed by managers to reduce the risk and uncertainty concerning technology, prices, climate, institutions, and human relationships affecting the business. Such information is vital in formulating production plans and examining related financial impacts.

Predictive information takes many forms. What are the expected prices next year? What yields are anticipated? How much capital will be required to upgrade production technologies? What would be the difference in expected returns in switching from a livestock farm to a cropping farm? Management has long used various budgeting techniques, simulation models, and other tools to evaluate expected changes in the business.

Without detracting from the importance of problem identification and analysis in management, the crux of management tasks is decision making. For every problem a manager faces, there is a "right" course of action.

However, the rightness of a decision can seldom, if ever, be measured in absolute terms. The choice is conditionally right, depending upon a manager's knowledge, assumptions, and conditions he wishes to impose on the decision.

Prescriptive information is directed toward answering the "what should be done" question. Provision of this information requires the utilization of the predictive information.

Predictive information by itself is not adequate for decision making. An evaluation of the predicted outcomes together with the goals and values of the manager provides that basis for making a decision.

For example, suppose that a manager is considering a new changing marketing alternative. The new alternative being considered has higher "predicted" returns but also has high risks and requires more management monitoring.

The decision as to whether to change plans depends upon the managers evaluation of the worth of additional income versus the commitment of additional time and higher risk. Thus, the goals and values of a farm manager will ultimately enter into any decision

HISTORICAL PERSPECTIVE

The importance of management information systems to improve decision making has long been understood by farm management economists.

Financial and production records have long been used by these economists as an instrument to measure and evaluate the success of a farm business.

However, when computer technology became more widely available in the late 1950s and early 1960s, there was an increased enthusiasm for information systems to enhance management decision processes.

At an IBM hosted conference, Ackerman, a respected farm management economist, stated that:

“The advances that have taken place in calculating equipment and methods make it possible to determine the relationship between ultimate yields, time of harvest and climatic conditions during the growing season.

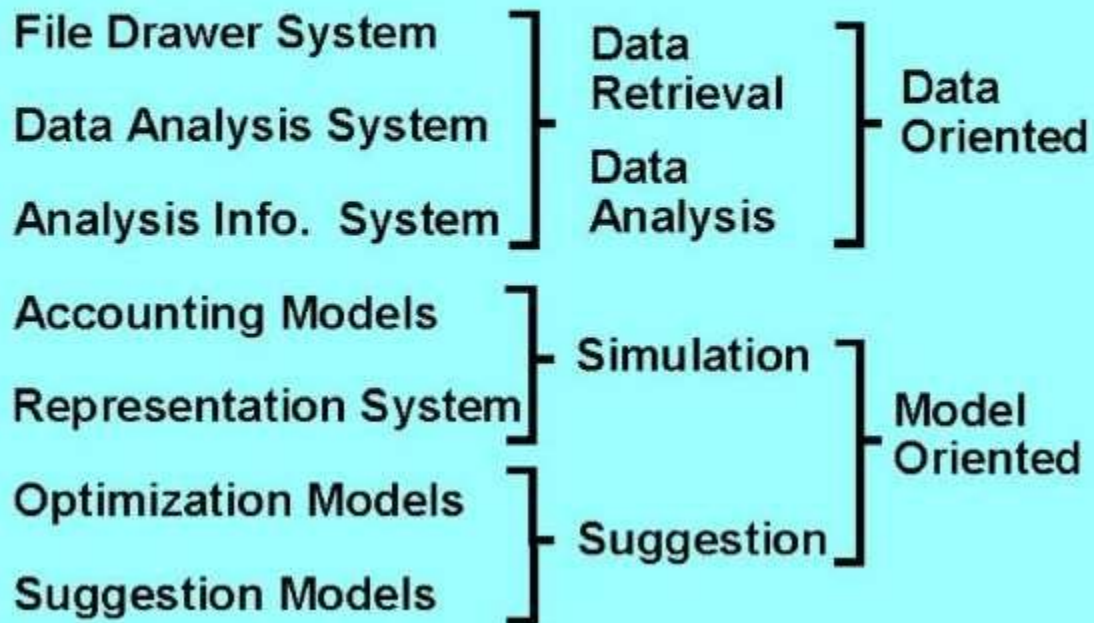
Relationship between the perspective and actual yields and changing prices can be established. With such information at hand the farmer should be in a position to make a decision on his prediction with a high degree of certainty at mid-season regarding his yield and income at harvest time.”

This statement, made in 1963, reflects the optimism that prevailed with respect to information systems. Even though there was much enthusiasm related to these early systems they basically concentrated on accounting activities and production records.

Examples include the Tel Farm electronic accounting system at Michigan State University and DHIA for dairy operations. These early systems relied on large mainframe computers with the data being sent to a central processing center and the reports sent back to the cooperating businesses.

To put these early efforts into a management information system framework, the one proposed by Alder (House, ed.) is useful. They would be defined as data oriented systems with

DATA ORIENTED vs. MODEL ORIENTED



limited data analysis capabilities beyond calculating typical ratios (e.g., return on assets, milk per cow, etc.).

By the mid 1960s it became clear that the accounting systems were fairly effective in supplying descriptive and diagnostic information but they lacked the capacity to provide predictive and prescriptive information.

Thus, a new approach was needed – a method of doing forward planning or a management information system that was more model oriented. Simulation models for improving management skills and testing system interaction were developed.

As an example, Kuhlmann, Giessen University, developed a very robust and comprehensive whole farm simulation model (SIMPLAN) that executed on a mainframe computer. This model was based on systems modeling methods that could be used to analyze different production strategies of the farm business.

To be used by managers, however, they often demanded that the model developer work closely with them in using the model.

Another important activity during this period was the “Top-Farmer Workshops” developed by Purdue University. They used a workshop setting to run large linear-programming models on mainframe computers (optimization models) to help crop producers find more efficient and effective ways to operate their business.

As mainframe time share computers emerged in the mid-1960's, it became possible to remotely access the computer with a terminal and execute software.

Systems such as TelPlan developed by Michigan State University made it possible for agricultural producers to run a farm related computer decision aids. Since this machine was shared by many users, the cost for executing an

agriculturally related decision aid was relatively inexpensive and cost effective. These decision aids included optimization models (e.g., least cost animal rations) budgeting and simulation models, and other types of decision aids.

These decision aids could be accessed by agricultural advisor with remote computer terminals (e.g., Teletype machine or a touch-tone telephone). These advisors used these computer models at the farm or at their own office to provide advice to farm producers.

These were exciting times with many people becoming involved in the development, testing, refining, and implementation of information systems for agriculture. Computer technology continued to advance at a rapid pace, new communication systems were evolving and the application of this technology to agriculture was very encouraging.

Because of the rapid changes occurring, there were international conferences held where much of the knowledge learned in developing these systems was shared. One of the first of these was held in Germany in the mid-1980s.

It was also clear from these early efforts that the data oriented systems were not closely linked to the model oriented systems. Information for the data oriented systems often did not match the data needed for the model oriented systems.

For example, a cash-flow projection model was not able to directly use financial data contained in the accounting system. In most cases, the data had to be manually extracted from the accounting system and re-entered into the planning model. This was both a time consuming and error prone process.

Because of the lack of integration capabilities of various systems, they were devoid of many of the desirable characteristics of an evolving concept described as decision support systems (DSS). These systems are also known as Executive Support Systems, and Management Support System, and Process Oriented Information Systems .

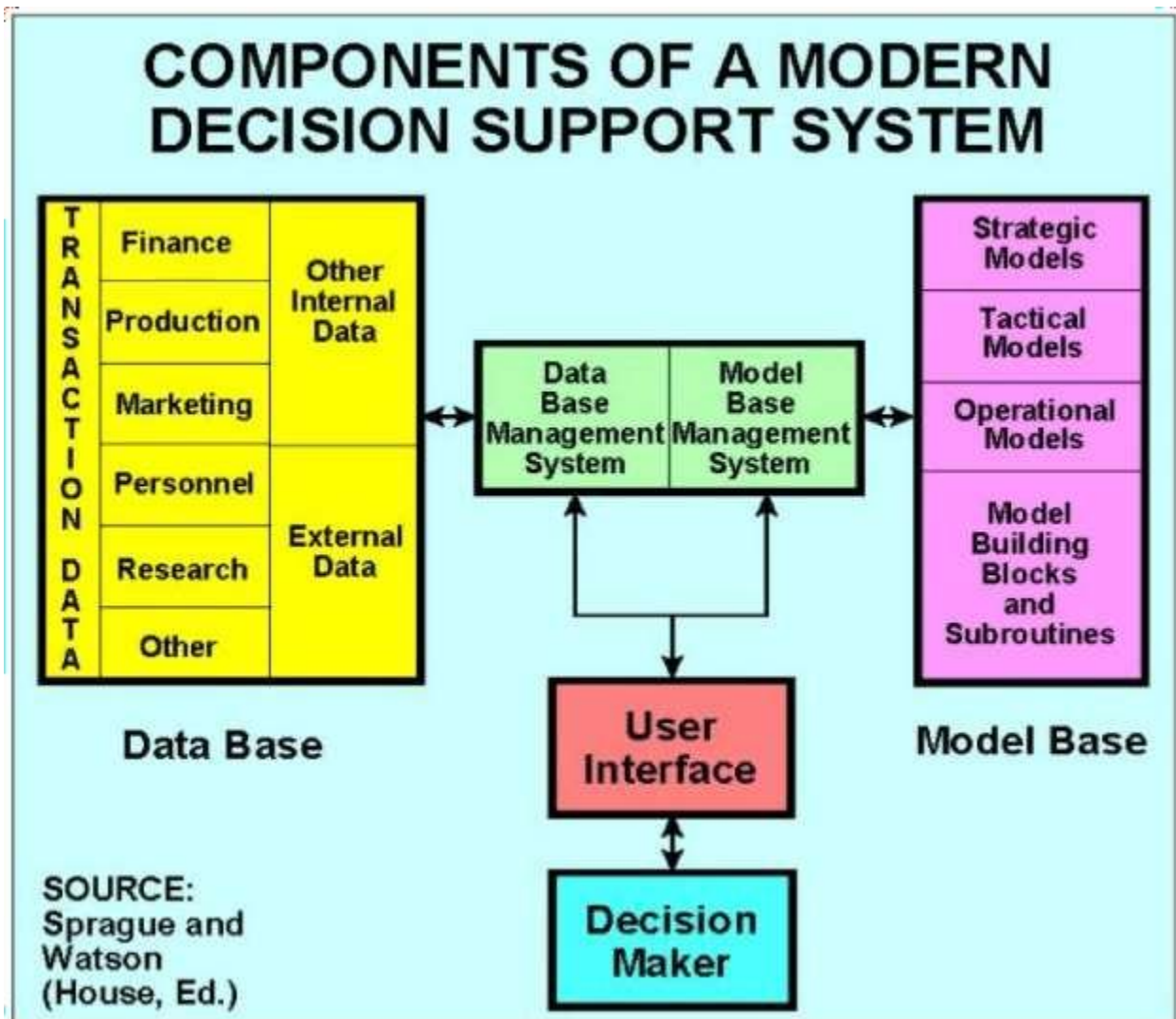
The decision support system proposed by Sprague and Watson (House, ed.) has its major components a database, a modelbase, a database/modelbase management system and a user interface .

The database has information related to financial transactions, production information, marketing records, the resource base, research data, weather data and so forth. It includes data internally generated by the business (e.g., financial transactions and production data) and external data (e.g., market prices). These data are stored in a common structure such that it is easily accessible by other database packages as well as the modelbase.

The modelbase component of the system has decision models that relate to operational, tactical and strategic decisions. In addition, the modelbase is able to link models together in order to solve larger and more complex problems, particularly semi-structured problems.

The database/modelbase management system is the bridge between database and modelbase components. It has the ability to extract data from the database and pass it to the modelbase and vice versa.

The user interface, one of the more critical features of the system, is used to assist the decision maker in making more efficient and effective use of the system. Lastly, for these systems to be effective in supporting management decision, the decision maker must have the



skills and knowledge on how to correctly use these systems to address the unique problem situation at hand.

Several follow-up international conferences were held to reflect these new advances in management information systems. The first of these conferences focused on decision support systems was held in Germany. This conference discussed the virtues of these systems and the approach used to support decisions. Several prototype systems being developed for agriculture were presented.

From these presentations, it was clear that the decision support systems approach had many advantages but the implementation in agriculture was going to be somewhat involved and complex because of the diversity of agricultural production systems. Nevertheless, there was much optimism for the development of such systems.

A couple of years later, another conference was held in Germany that focused on knowledge-based systems with a major emphasis on expert systems and to a lesser extent optimum control methods and simulation models. Using Alter's scheme to describe information systems, for the

most part these would be described as suggestion models. It was interesting to note that the prototype knowledge-based systems for the most part did not utilize the concepts of decision support systems which was the focus of the earlier conference. Perhaps this was related to the fact that many of the applications were prototypes.

The international conference that followed in France focused on the low adaptation rate of management information systems. This was a topic of much discussion but there were few conclusions reached except the systems with the highest adaptation rate were mainly data oriented ones (e.g., accounting systems, field record systems, animal production and health records, etc.) which provide mainly descriptive and diagnostic information.

The international conferences that followed had varying themes. One of the major themes was precision agriculture with several conferences held.

These conferences extolled the use of geographic information systems (GIS) in conjunction with geographic positioning systems (GPS) to record and display data regarding cropping operations (e.g., yields obtained) and to control production inputs (e.g., fertilizer levels).

Other conferences addressed the use of information systems to more tightly control agriculture production such as those developed for greenhouse businesses.

To briefly summarize the historical developments, there have been significant efforts devoted to improving the management information systems from the early computerized activities forty years earlier.

The decision aids available have grown in number and they are more sophisticated. There has been some movement toward integration of the data oriented systems and the model oriented systems.

An examination of our current usage of management information systems, however, suggests that we have not nearly harnessed the potential of the design concepts contained in modern management information systems.

CURRENT STATUS OF INTERNAL INFORMATION SYSTEMS

The current status of management information systems is remains dynamic. Several adoption surveys and personal experiences lead to some interesting observations. These observations will be reviewed in the context of a decision support system as defined by Sprague and Watson.

On-Farm Information Systems--Computer Hardware

The percentage of farms owning a computer continues to grow. Most commercial farms now own a computer and have access to the Internet, many with high speed connections. Most of the computers are of recent vintage with large data storage and memory capacity. It is safe

to state that the hardware is not the bottleneck with respect to management information systems.

On-Farm Database and Modelbase Applications

The decision support system literature stressed that the database and modelbase remain separate entities. They should be bridged by the database/modelbase management system. In examining much of the software developed for on-farm usage, it appears that most of it does not currently employ this design concept.

Indeed most of the software is a stand-alone product with the database an integral part of the modelbase. However, some packages have the ability to export and import data, allowing for the sharing of data across the various packages, but these data sharing features are usually rather narrow in scope and flexibility.

The most common software packages used by agricultural producers are data oriented with the most common being one designed for financial accounting.

Accounting packages explicitly designed for agricultural businesses and general business accounting packages are used for keeping the financial records.

Because of their rather low cost relative to the agricultural specific packages, the general purpose packages are growing in market share. These financial accounting systems are used beyond completing tax documents. They are also important for providing information to creditors and for planning and control.

Production management also accounts for a significant proportion of computer usage. There are many software packages available that address livestock problems. Some are database programs to keep track of animal related data and/or feed inventories.

There are models to address operational and tactical decisions such as ration balancing, culling decisions, alternative replacements options, etc.

However, many livestock producers also use off-farm production records processing such as using the DHIA service bureau for processing dairy records. These service bureaus provide a downloading feature so the data can be moved to the on-farm computer.

For cropping operations, there are similarities in software availability. Database systems are available for keeping track of information on fields and sub-fields, particularly fertilizers and pesticides applied, varieties planted and yields achieved.

Though there is increasing interest in geographic information systems by agricultural producers, the main usage is for yield monitoring and mapping.

This approach is used to evaluate the effectiveness of alternative management practices employed in the production of the crop (e.g., comparison of varieties, seeding rates, pest control measures, tillage systems, etc.) and to identify field problems (e.g., soil compaction, drainage problems, etc.).

This yield monitoring approach is finding the greatest acceptance and this may be in part because the yield monitoring and mapping systems are common option on grain harvesting equipment.

One of the real concerns with using yield monitoring and mapping systems relates to the issue of arriving at the correct inference of what causes the variation in yields noted. The potential layers of data (e.g., pH, precious crops grown, soil structure, planting date, nutrients applied, variety grown, pesticides used, rainfall, etc.) has been suggested to exceed 100. To be able to handle the large number of

9 data layers in an effective manner would suggest a full-feature geographic information system (GIS) might be needed.

However, few agricultural producers have access to a full-feature GIS and/or training to utilize these systems, and there are substantial costs related to capturing and storing various data layers. Nevertheless, the more obvious observations originating from these systems (e.g., such as poor drainage and soil compaction) have resulted in sound investments being made in corrective measures.

To a limited extent, some agricultural producers are starting to make use of remote sensing data to identify problems related to the growing crop such as an outbreak of a disease.

Those using remote sensing feel they are able to more quickly identify the problems and take corrective action, minimizing the damage done.

Precision agriculture applied to the animal industries is on a different scale.

Information systems are playing a major role on the integrated mega-farms. When using information systems to carefully track genetic performance, balance rations, monitor

health problems, facilities scheduling, control the housing environment and so forth, it is generally acknowledged that it is possible to achieve a fairly significant reduction in cost per unit of output (10-15%) over that of more traditional, smaller farming operations. These are proprietary information systems and the information from these systems are used to gain a strategic competitive advantage.

Lastly, the general purpose spreadsheet is the most common software used for planning purposes. Some of these applications are very sophisticated and address complex problems.

User Interface

The user interface has improved greatly in quality. Most agricultural software now uses the windowing environment. This environment makes it easier for the user to use and access data and information, and to move data from one application to another or to link applications. However, this still remains a user-initiated task and in some cases can be complex.

Also most of the data contained in the software package is unique to that package and not easily shared with other software packages. Thus, from a DSS viewpoint there are still significant shortcomings.

The Decision Maker

An often overlooked component of a decision support system is the decision maker. Prior surveys suggest that the primary user of the on-farm computer system is the farm operator. Operators that are younger and college educated were much more likely to routinely use the computer.

Also large farms were more likely to utilize a computer in their farming operation. It is also observed that there is a fair amount of “learning cost” related to use of on-farm information systems. These costs can be large enough to hinder the adoption of management information systems.

CURRENT STATUS OF EXTERNAL INFORMATION SYSTEMS

There is increased interest and excitement about the role external information systems available to agricultural producers, particularly Internet and satellite data transmission systems.

Each of these technologies is a vast resource of data which can be used to enhance the various levels (e.g., information, intelligence, knowledge, wisdom) of Haechel's Hierarchy for an individual or organization.

Another information source is the outside advisor. As the complexity and breadth of the farm level decision process has increased, the use of consultants and advisors has grown. This is particularly true of the larger farming operations.

Internet

The growth in Internet is phenomenal. The growth in its use by agricultural producers is also phenomenal. Email is a common communication tool used by agricultural business. The same is true for the world-wide-web (WWW).

They made extensive use of the web to find information that fit their unique requirements. Even though they find it a major source of information for their operation, it takes good skills to locate the information desired.

One of the common complaints is the amount of time it takes to utilize the Internet effectively and the lack of depth of information. One of the critical questions relates to how effective Internet is in addressing the higher levels of Haechel's hierarchy.

Other Internet resources available to agriculture include sites for downloading agricultural software. Much of the economic data compiled by the government is now available on-line. Lastly, in some cases it is being used as a marketing tool for products produced by the business.

Satellite Data Transmission Systems

The satellite data transmission systems are widely used by producers. These systems are passive data acquisition systems from the user's viewpoint. Data is continuously broadcast to the leased data terminal from a satellite.

The data is automatically stored in the data terminal and can be accessed by a reading process. These systems provide current data/information on a number of topics. Amounts and types of data/information received depends upon the options purchased.

The basic subsystem provides for the latest market prices and news, weather maps (e.g., rainfall, jet streams, severe weather, crop soil moisture index, soil temperature, air temperature, etc.), government reports on market developments, long- and short-term

weather forecasts, political developments that pertain to agriculture, and product information. Premium service options add even more features.

Outside Advisors

Several recent studies suggest that use of outside advisory services by farmers to enhance and supplement their on-farm information systems was fairly prevalent. The tax preparer is the

advisory most commonly used. Other important sources of information include the local Extension agents, veterinary consultants, accountants, crop/pest management consultants, and livestock management advisors (e.g., a nutritionist).

The outside advisors utilize many different software packages to help provide advice to producers. FINPAK developed by the University of Minnesota is an example of a software package widely used by outside advisors with farmers.

This financial analysis and related projection package helps evaluate the financial process being made by the farm and compares alternative future business options. This package (an accounting type model) is widely used in the U.S.

THE FUTURE

Predicting the future is not an exact science. But with the structural changes occurring in agriculture today, the management problems are significantly different from the problems of yesterday. Earlier emphasis in information systems was on improving production management decisions.

Today, major issues that are commonly faced in management relate to financial, human resource, and marketing management. These management areas and their importance are identified in the strategic management workshops I have conducted with agricultural producers.

Thus, managers will have less time to address production issues because more time and effort are being focused in the other management areas. This will have an impact on information systems to address production management.

Addressing Structured Decisions

In the future information systems to address production management will likely be of five general types:

- 1) Software for systems analysis,
- 2) Theory testing, software for teaching purposes,
- 3) Software for advisors,
- 4) Software for use by producers, and
- 5) Software to control and monitor the supply chain.

Software for systems analysis and theory testing will be developed with the primary objective of defining the structure and studying the dynamics and interaction of the various system components.

Its main use is in research. These models are fairly complex and often have robust data requirements. Their utilization often depends upon availability of the developers to run the model or assist in the use of the model.

This software is very useful in testing various hypotheses regarding system dynamics (e.g., would supplemental irrigation in the early growth stages greatly affect yields?)

These models play a vital role in generating a better understanding of the overall system and can give valuable insight on how to manage the system. They are also useful in identifying areas for further research.

The results from these models are communicated in various ways (e.g., journal articles, trade journals, and advisory service publications and conferences) and these

communicated results are often used by producers to adjust production practices. However, direct use by producers to evaluate their own unique situations is not common with these models.

There are several reasons for this limited use including a poor user interface or lacking the data to drive the model. Also, it is generally unlikely that transformation of a model of this nature into one that is to be used by the producers will be successful.

Software developed for teaching purposes is likely to continue. Sometimes these software packages are referred to as simulation games. Because these models teach concepts and principles, they are often a simplification of reality.

They tend to use the case analysis approach, making it difficult to use the model to analyze various options and alternatives utilizing actual business data. The models are often used in an interactive mode (e.g., in a classroom or workshop environment) where knowledge is gained by testing "what if" questions, then observing the results.

These models can be very powerful teaching tools, but are rarely used to analyze actual business situations. Producers often lose interest in using this software because it is too simplistic, takes too much time and effort to extract knowledge for better decision-making, or it does not adequately reflect the reality of the business.

Software for advisors is a class of software that is used by agricultural advisors (e.g., Extension staff, consultants, and agribusiness firms) to assist producers in making decisions.

The advisor is a necessary intermediary, because the software could demand a thorough understanding of a difficult set of concepts (e.g., long range planning) or it may be rather demanding of the user's time and effort (e.g., a large amount of data has to be collected, entered and analyzed), or the time and effort to become proficient in the use of the model is considered excessive.

This type of software will grow in importance as the use of outside consultants and advisory services by agricultural businesses grows. These outside advisors and consulting services will increasingly use many different software packages to help provide advice to the producer.

The package they used depends upon their area of specialization. For instance, those that are offering production advice may use one of several production decision aid models.

Advisors also serve as an intermediary to extracting information from Internet (external data). They often subscribe to threaded discussion groups. They use these groups for posting problems and receiving back suggested solutions. They also learn from the exchange of ideas between others using the system.

Also, advisors more readily see the merit of using a software program designed for systems analysis for enhancing their personal knowledge and skills and solving problems for their clients. This is particularly true if the software has a good user interface.

Software for use by producers is and will continue to be some of the most demanding software to develop. As indicated earlier, a large amount of software has been written, but much of it has fallen short of expected usage rate.

One reason is the decision makers have found the software fails to address their problems. The software must be fairly easy to utilize, and the producer expects it to provide information that has a perceived value greater than the cost of attaining that information.

Software being used by producers can be grouped into two subcategories. The first subcategory is used to process transaction data and meet regulatory requirements. These are the software applications most used by the actual businesses.

They must keep accounting, personnel and crop production records (e.g., pesticides used) because of government regulation. They also use software to reduce the time, effort and cost of processing the transaction records.

This is why payroll packages, and shipping and billing systems are commonly employed on these operations. This usage will continue to grow in importance. The other subcategory of software is used for management purposes. This currently accounts for a lesser portion of the computer usage. A large growth in this usage of this software is unlikely.

The time and effort to master this software is a major commitment. Since management time is being diverted to areas other than production management, they will have less and less time to become proficient in the use of this software.

Thus, very thorough and sophisticated systems (e.g., the SAP software system) currently being employed by large companies are not likely to become common on farm businesses because of their complexity and cost.

Software for process control is used to control and automate many of the structured operational decisions of the business enterprises, such as controlling temperature, light, irrigation and fertility in greenhouses.

These models are generally of a closed-loop optimal control design. The process control models are generally knowledge based systems and have been developed using knowledge from many sources including the systems analysis models discussed earlier.

The use of process control systems will grow in importance and acceptance. This acceptance implies that the managers have confidence in the models and that they improve the efficiency and effectiveness of the business. These models also free them to concentrate on more complex decisions.

Software to control and monitor the supply chain will greatly grow in importance. There will be many factors driving this growth including concerns about food safety, country of origin labeling, organic foods, foods to meet special dietary requirements, and concerns about product liability suits.

It will likely become commonplace that a food item purchased by the consumer at the retail level will have attached its entire history, including identity preservation and traceability, included with the purchase.

The new advances in RFID chips and the requirements by certain major retailers to label all products with these chips will impact agricultural businesses including those engaged in producing farm products. The system imposed upon the entire supply chain will likely be designed by the retailers and the entire chain will need to adjust to the defined information structure.

To adapt to the defined information structure may mean a major restructuring of the information system currently being used by the business with substantial costs associated with the conversion.

Addressing Ill-Structured and Unstructured Decisions

To address the management areas related to human resources, finances, and marketing, suggest information systems that can address ill-structured or unstructured problems. Some would state that we are in the process of moving from the "old economy" to "new economy." With this paradigm shift, among the changes is a movement from resource based to idea based wealth creation, from a stable comparative advantage to a dynamic one, from investment in physical assets to investment in human capital, from protected to open markets, from subsidies to encouragement to adapt, from hierarchical organizations to strategies alliances and partnerships.

In addition agriculture will move from commodity markets to product markets and it will become more environmentally friendly, concerned with food safety, and quality and supply coordination.

If this transition from the "old economy" to the "new economy" occurs for agriculture, then the information systems of the past will not be adequate for the future. They will need to be much broader and more comprehensive than the current systems. The future systems must:

address the larger scope of financial management rather than financial record keeping, tax reporting, and analysis; help define marketing strategies and alliances; help identify potential niche markets rather than supplying data on current commodity market trends; support the

creation of new ideas; nurture the growth of knowledge since this will become a major source of wealth creation; deal with the many dimensions and complexity of human resource management;

signal needed production changes in an overall system of supply chain management; assist in negotiating contractual arrangements; help the producer adapt to an economic climate that has more risk and uncertainty because of less government intervention in markets; provide the capacity to track the identify of a product from its genetics to the consumer; assist in producing a product that meets customer desires rather than the production of a commodity.

Developing farm-level information systems to fulfill these needs will be a major challenge. It will take a major rethinking with regard to the role of management information systems.

It will involve more than enhancing hardware, communications infrastructure, and software components of the information system. An equally important consideration will be the analytical skills, knowledge, wisdom, and interests of the agricultural decision maker.

The information system of the future will need to concentrate more on the upper levels of Haechel's hierarchy--knowledge and wisdom. As Honaka and Hirota observe, knowledge has two forms, tacit (subjective) and explicit (objective).

Tacit knowledge is gained from experiences and practice, whereas explicit knowledge is based more on theory and rationality. As decision makers address problems, they convert knowledge between the two forms.

An information system that focuses only on one form will have shortcomings. The information system of the future must have both forms of knowledge, and encourage the conversion of knowledge between the forms as a continuous process. Only by this process will the manager's knowledge base grow in size and function.

Information systems of the past have tended to concentrate on explicit knowledge (e.g., linear programming to balance earthenware) and, to lesser extent, tacit knowledge. Many of the problems of the future will involve tacit knowledge.

The challenge will be designing information systems that will allow for an easier and more effective means of sharing tacit knowledge. The Internet will no doubt play a key role in meeting this challenge. Perhaps a system for documenting experiences (e.g., structured case studies) can be used to enhance the sharing of tacit knowledge.

BUSINESSLAW

INTRODUCTION TO LAW

Law is essential to any society in that it provides the rules by which people and businesses interact. Law affects almost every function and area of business. The authors of one business law text go so far as to say that “the difference between winning and losing in the business world often depends upon the ability to make good choices from a legal perspective.”¹ This is because almost every business decision has legal repercussions, including deciding whether to incorporate a business, obtaining financing, protecting proprietary knowledge used to develop products/services, entering into contracts to purchase raw materials, ensuring that products meet safety standards, disposing of plant wastes, promoting and pricing products/services, entering into contracts to sell products/services, and providing product warranties and after-sales service.

At all stages of business, running afoul of the law can hurt a business, while playing within the boundaries of the law can help the business to succeed. For this reason, accountants, who play a key role in almost every aspect of operations, must have a solid working knowledge of the law.

With these definitions in mind, business law could be defined as rules that govern business relationships. DuPlessis and O’Byrne suggest that business law performs many functions, including:

- Defining general rules of commerce;
- Protecting business ideas and business assets;
- Providing mechanisms that allow business people to determine how they will participate in business ventures and how much risk they will bear;
- Ensuring that losses are borne by those responsible for causing them; and
- Facilitating planning by ensuring that commitments are honoured.

While staying within the confines of an increasing array of business laws is necessary for success in business, it is not sufficient. Businesses must also recognize additional limitations and expectations placed upon them by business ethics, those principles and values that define what is right and wrong. While ethical principles normally start with what is legal, they often impose a higher standard that recognizes a multitude of stakeholders beyond just suppliers, customers, and employees. While the focus of this document is on what the law requires of business, ethical standards will also be discussed.

SOURCES OF CANADIAN LAW AND THE LEGAL SYSTEM

We begin this section with an overview of the Canadian legal environment to set the stage for subsequent sections, where specific types of law pertaining to businesses, such as tort law and contract law, will be examined.

Categories of Law

The law can be categorized in several ways. First, there is the distinction between substantive law and procedural law. **Substantive law** consists of the rights and duties that each person has in society, e.g., the right to own property or to make contracts and the duty to avoid injuring others and to obey

various laws. **Procedural law** deals with the protection and enforcement of the rights and duties of substantive law; it provides the machinery by which these rights and duties are realized and enforced. To put it briefly, substantive law relates to what the law is, whereas procedural law relates to how it is enforced.

Substantive law is divided into two fields

1. **Public law** is concerned with the conduct of government and with the relationship between government and private individuals. Public law is divided into categories such as constitutional, criminal, and administrative law.
2. **Private law** consists of the rules governing relations between private individuals or groups of persons. Private law—which can be divided into categories such as torts, contracts, business entities, business relationships, and property rights—forms the substance of business law and is the main focus of this document.

While the predominant concern in a business law course is substantive law, we will first consider the basics of procedural law, the form or organization of the legal system and its methods of conducting trials.

Systems of Law: Civil Law and Common Law

Around the world, two basic legal systems exist, civil law and common law. In brief, civil law emphasizes legislation, while common law emphasizes decisions handed down by the courts.

Civil law is the system of law derived from Roman law. Its focus is on the development of a comprehensive legislated code. Civil law developed in continental Europe and was greatly influenced by the Code of Napoleon in 1804. Most of the private law in Quebec is civil law, but the rest of Canada falls under common law (to be described next). Civil law applies to only a few southern states in the United States (e.g., Louisiana), as well as to Mexico, continental Europe, most of Scotland, much of Africa, and all of South and Central America.

Common law is the system of law in most of the English-speaking world and many non-English-speaking countries that were once part of the British Empire, such as India, Pakistan, and the Caribbean. Within Canada, all provinces and territories except Quebec have adopted common law. Common law is based on **precedent**, the recorded reasons given by judges for their decisions and adopted by judges in later cases.

Common law is designed to facilitate two important aspects of justice:

1. Consistency, so that there is equal treatment in like situations;
2. Predictability, so that people can find out ahead of time where they stand and act with reasonable certainty in making decisions about whether to sue or to defend themselves.

The system of determining law by following already-decided cases, or precedent, is known as **stare decisis**, a Latin phrase meaning "to stand by a previous decision." On the one hand, we want the law to be stable and certain enough that it can be consulted confidently to predict the legal consequences of our conduct. On the other hand, we want the law to be flexible enough to relate to changing conditions and social attitudes—we do not want to be judged by out-of-date standards. Stare decisis implies a preference for the objective of certainty ("let the decision stand"), but the courts have reserved for themselves a considerable amount of flexibility while still formally accepting

the authority of their earlier decisions. Thus, there is an attempt to strike a balance between accommodating change and achieving consistency.



Stare decisis means that a lower court is bound by a decision of a superior court in the same jurisdiction when the superior court has decided the same issue. A decision in one province will have persuasive value in other provinces but will not be binding. Sometimes, a court of appeal in another province will come to a contrary decision, leaving the law in an uncertain state that can be resolved only by a decision of the Supreme Court of Canada, which is binding on all other courts in Canada. However, lower courts are constrained only to the extent that the facts of a case before them substantially coincide with, i.e., are not "distinguishably different" from, the facts of the earlier Supreme Court decision.

Therefore, lower courts still have considerable scope to **distinguish** the earlier case on the basis of its facts. When a losing party believes a lower court has incorrectly distinguished the facts, it may appeal to a higher court on these grounds. While the decision of a lower court is not a binding authority on other courts, the facts of the case may still be of wide general interest and the reasons for judgment so easily understood that the decision may have considerable influence and even be "followed" in other later cases unless and until the Supreme Court of Canada rules on the matter and comes to a contrary decision. The decisions of respected English and American judges as well as the decisions of judges from other common law countries may similarly influence the decisions of Canadian courts.

Sources of Law: The Constitution, Legislation, and the Courts

There are three sources of law: the Constitution, legislation, and the courts. The Constitution is the foundation law from which all other laws draw their power. In turn, legislation is passed by Parliament and by provincial legislatures in compliance with the Constitution. Such statutes may codify case law that developed in the courts, or it may change case law. Lastly, the courts hand down judgments that also develop and shape legal principles.⁹ Each of these sources of law will be discussed in more detail in the sections to follow.

The Constitution

The Constitution provides the basic skeleton or framework for Canada's legal system. It creates the basic rules for Canadian society and its legal and political system. The Constitution is also the highest source of law. Section 52(1) of the Constitution states: "The Constitution of Canada is the supreme law of Canada, and any law that is inconsistent with the provisions of the Constitution is, to the extent of the inconsistency, of no force or effect."¹⁰ The Constitution is also very difficult to change—the normal amending formula requires the consent of Parliament as well as the consent of the legislatures of at least two-thirds of the provinces, which represent at least 50% of Canada's population.

The Constitution implements the federal system of Canada by setting out the **division of powers** between the federal and provincial/territorial jurisdictions, that is, by setting out the areas for which each level can create laws. For instance, the federal government is responsible for criminal law, taxation, unemployment insurance, banking and money, bankruptcy and insolvency, trade and commerce, shipping, and copyright, while the provincial governments have jurisdiction over property and civil rights (e.g., contracts and torts), corporations with provincial objects, and the creation of municipalities. The federal government also has **residual power**—power over anything that is not otherwise mentioned, which gives it jurisdiction over areas that did not exist when the Constitution was written in 1867, including telecommunications and air travel. As well, if federal and provincial statutes are ever in conflict, the **doctrine of federal paramountcy** determines that The Charter of Rights and Freedoms

In 1982, the Charter of Rights and Freedoms became part of the Constitution. The Charter places limits on many aspects of government actions and protects human (versus property) rights. Figure 1-1 highlights some of the rights and freedoms protected by the Charter.

It is important to note that the Charter does not describe **property rights** (the right to own and enjoy assets) or **economic rights** (the right to carry on business activities).

The Charter is also subject to a number of other important restrictions

1. The Charter's rights and freedoms are fully applicable only when a person complains about government behaviour. Thus, the Charter does not directly apply to disputes involving private parties; however, the Supreme Court of Canada has ruled that private law should be developed in a way that is consistent with Charter values.
2. The Charter also generally does not apply in favour of or against private corporations.
3. Section 1 of the Charter states that its rights and freedoms are subject to "such reasonable limits prescribed by law as can be demonstrably justified in a free and democratic society." It is for this reason that limitations may be placed on selling violent pornography or advertising to children.
4. Section 33 of the Charter may allow Parliament or a legislature to create and enforce a law "notwithstanding" the fact that it violates the Charter. However, this section has only been used once in the common law provinces and territories.

When the Charter is violated, the court may award whatever remedy it considers "appropriate and just in the circumstances." For instance, the court may simply issue a **declaration** that the Charter has been violated and leave it to the legislature to solve the problem. The court may impose an **injunction** that requires the government to resolve the problem in a specific way. Going even further, the court may **strike down** a statute that violates the Charter, leaving the legislature to enact a new law that adheres to the Charter. The court may also save a statute by re-writing part of it—by **severing** out the offending law, **reading down** a statute that is applied too broadly, or **reading in** a statute that is written too narrowly. The court may also award damages to people who suffer a Charter violation

Statutes: Law made by Parliament, Provincial Legislatures, and Municipal Governments

Legislation may be passed by either Parliament or provincial legislatures. The most important kinds of legislation are **statutes** or **acts**. For example, every jurisdiction in Canada has an act that allows corporations to be created.

In most cases, a **bill** is introduced into the House of Commons by a Member of Parliament. If the bill receives majority support at the First Reading, it goes to the Second Reading, where it is debated. If

it receives majority support, it is sent to a legislative committee for detailed study. At the Third Reading, if it receives majority support, the bill passes and dissent to the Senate, where the process is repeated. The final step, a mere formality, is Royal Assent, where the bill is approved by the Attorney General, as the representative of the Queen.

There are two main classes of legislation—passive and active. **Passive legislation** either prohibits an activity that was formerly permitted or permits an activity that was formerly prohibited. Passive legislation provides a framework within which people legally go about their business and puts the onus on either an injured party or a law-enforcement official to complain about any activity that violates the legislation. In contrast, **active legislation** gives government the right to carry on a program such as levying taxes, providing revenues, and supervising economic activities. Every government department, agency, and tribunal is established by the legislature in a statute. In exercising its regulatory powers, an administrative agency creates new law (**subordinate legislation**), such as the criteria for obtaining business licences.¹⁵

One of the most important types of subordinate legislation involves municipal by-laws. The Constitution is concerned with only two levels of government (federal and provincial) but it gives provinces the power to create municipalities and, in turn, it gives municipalities the power to pass rules and laws that govern the city or town.

Common Law: Law Made by Judges

In the context of a discussion of legal systems, the term **common law** refers to a legal system that can be traced to England, and the term **civil law** refers to a system that can be traced to France. The term **common law** has a second meaning—it refers to the source of a law. When used in this connection, **common law** refers to laws that are created by judges rather than by statute. When the Charter is violated, the court may award whatever remedy it considers “appropriate and just in the circumstances.” For instance, the court may simply issue a **declaration** that the Charter has been violated and leave it to the legislature to solve the problem. The court may impose an **injunction** that requires the government to resolve the problem in a specific way. Going even further, the court may **strike down** a statute that violates the Charter, leaving the legislature to enact a new law that adheres to the Charter. The court may also save a statute by re-writing part of it—by **severing** out the offending law, **reading down** a statute that is applied too broadly, or **reading in** a statute that is written too narrowly. The court may also award damages to people who suffer a Charter violation.

The early courts of common law could offer only monetary damages to the injured parties. Thus, another set of courts came into existence—the **courts of chancery** or **courts of equity** where petitions were heard by the king and his chancellor and vice-chancellors. The rules of law that these courts administered became known as **equity**. **Equity courts** could offer **equitable remedies**. If they saw fit, they could order **specific performance**—the carrying out of a binding obligation. Defendants who refused were jailed for **contempt of court** until they agreed to carry out the court's order. As equity law developed, its principles—such as trust, loyalty, and consideration of the relative position of the parties—became accepted as common law principles. In 1865, the British Parliament passed legislation to merge the two systems of court into the common law system we have today; the Canadian provinces passed similar legislation shortly thereafter.

Relationship Between Statutes and Common Law

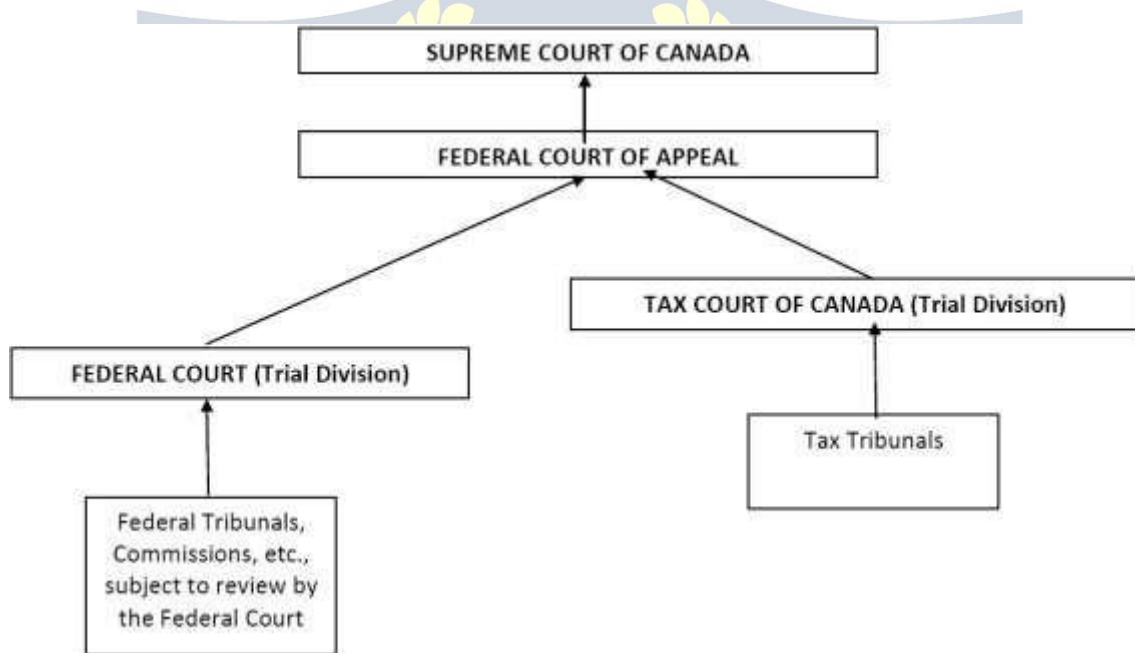
A **statute** overrides all the common law dealing with the same point. Legislatures may change common law or simply **codify** the law, i.e., summarize in a statute the common law rules governing a particular area of activity. The courts are often called upon to interpret a statute to decide whether it applies to the facts of a case and, if so, to decide on the consequences of breaking the law. These decisions then form part of judge-made law.

Courts regularly use precedent even though the facts in the original case may be quite different from the case at issue. However, they adhere to **strict interpretation** of statutes: the courts apply the provisions of a statute only where the facts of the case are specifically covered by that statute. Nevertheless, Canadian courts are encouraged by the federal Interpretation Act to take a “fair, liberal, and large” interpretation of statutes.¹⁹ Such a **liberal approach** to the interpretation of statutes considers the context, the custom and trade usage of the language, and the intent or purpose of the statute when it was passed.

USING THE COURTS - An OVERVIEW OF CIVIL PROCEDURE

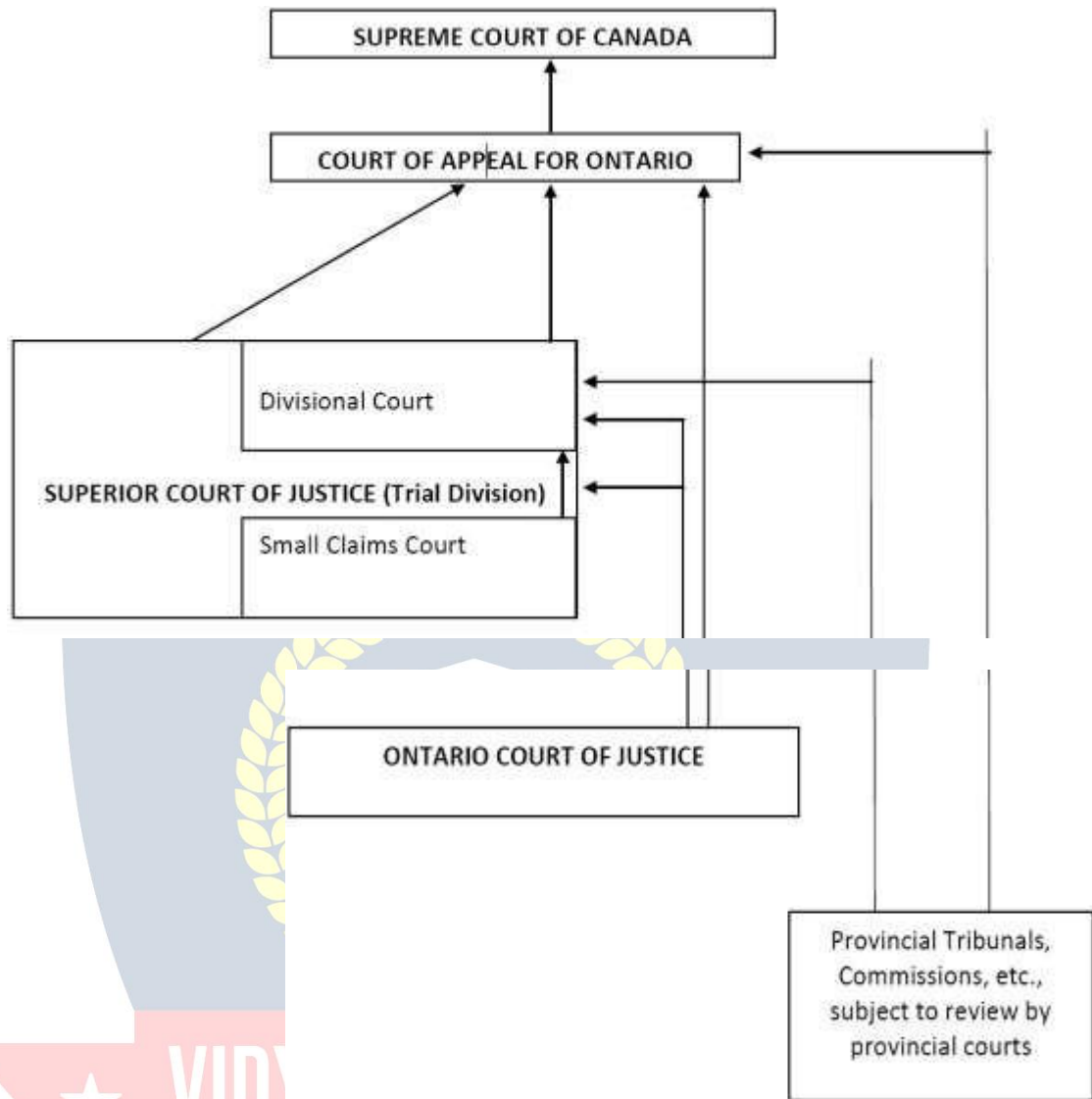
The Court System

Canada has a three-tier system similar to that of England, with courts of first instance (trial courts), intermediate courts of appeal, and the Supreme Court of Canada. Figure 1-2 illustrates the federal court system and Figure 1-3 illustrates the Ontario provincial court system. **The Federal Court System**



The Federal Court (Trial Division) has jurisdiction over claims against the federal government, litigation in areas of federal jurisdiction under the Constitution, and appeals from federal tribunals. The Tax Court of Canada has jurisdiction over goods and services tax, income tax, employment insurance, and appeals from tribunals in these areas. The Federal Court of Appeal hears appeals from the Tax Court and the Federal Court (Trial Division). The Supreme Court of Canada is the highest court in the country. It is necessary to have **leave**, or permission, to appeal to the Supreme Court. The Court generally agrees to hear only cases that raise an issue of national importance. Appeals are almost always heard by five, seven, or nine **justices** (as the judges are called).

Figure 1-3: The Ontario Court System



The Ontario Court of Justice (Trial Court) uses provincially appointed judges for family-law (custody, support, and adoption) cases and for less-serious criminal offences. Justices of the Peace are used for provincial offences (traffic tickets), search warrants, and bail hearings.

The Superior Court of Justice (Trial Court) uses federally appointed judges. It handles all civil litigation, family litigation (custody, support, and divorce), and more-serious criminal offences. For civil litigation, Ontario has a Small Claims Division that handles claims up to \$25,000. Claims between \$25,001 and \$100,000 are resolved out of the Superior Court using a special set of simplified rules.²¹ Claims in excess of \$100,000 are dealt with by the Superior Court of Justice under the regular Rules of Civil Procedure.²² The Divisional Court of the Superior Court has appellate jurisdiction for review of government action, appeals from the decisions of government tribunals, and appeals of civil cases up to \$50,000.

The Court of Appeal for Ontario (Appellate Court) decides cases in panels of three judges or more. It hears appeals from the Superior Court. In most other provinces, the Small Claims Court is a division of the Provincial Court. Ontario's "provincial court" is the Ontario Court of Justice. Finally, the Supreme Court of Canada has jurisdiction over all appeals from provincial appeal courts.

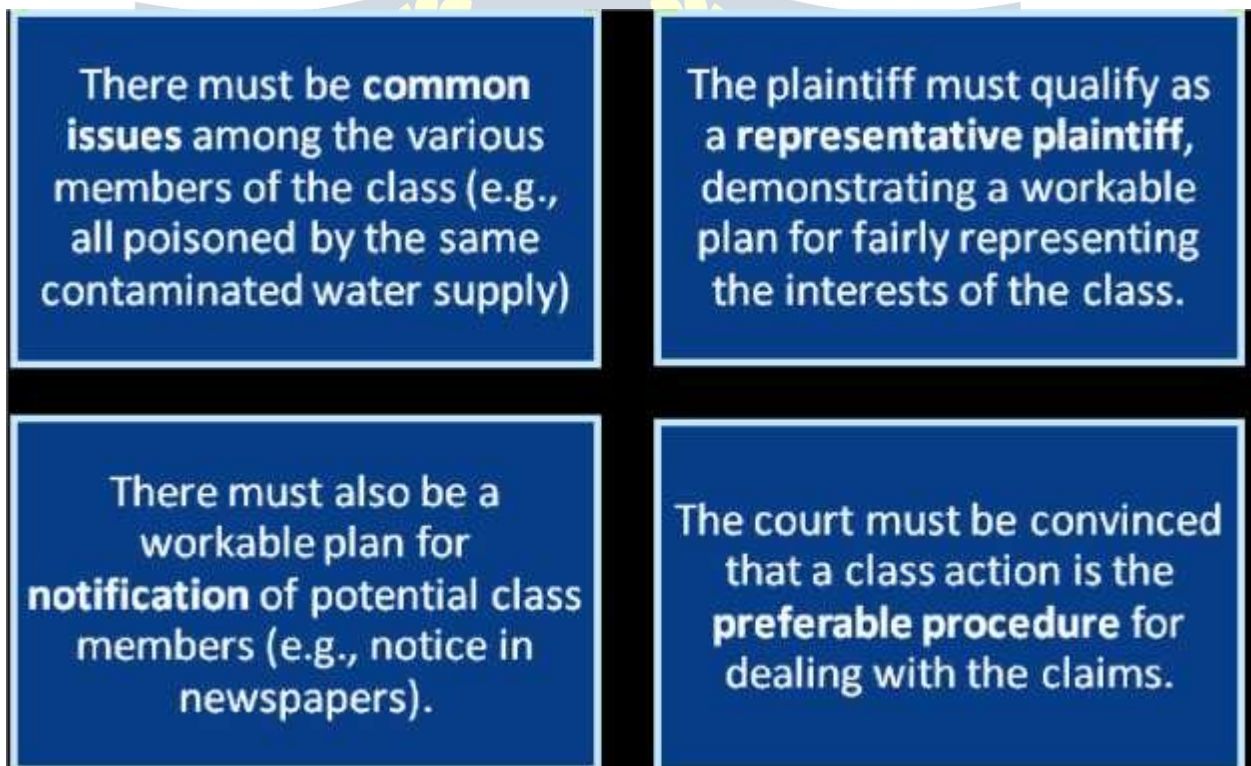
The Litigation Process

Litigation is the system of resolving disputes in court. As a general rule, all adults are free to use the Canadian courts, whether or not they are Canadian citizens. Minors or adults with a mental disability can be sued or sue only through a court-appointed representative. Corporations are legal persons and therefore can sue or be sued. Unincorporated associations, with the exception of trade unions, cannot sue or be sued, but their individual members can. The general rule is that the “king can do no wrong,” which means governments cannot be sued unless a statutory authority permits it.

Class action suits are also allowed, where a single person or a small group of people sues on behalf of a larger group of claimants. Class action claims are becoming increasingly prevalent in areas like product liability, mass torts (e.g., contaminated water supply), gender discrimination in the workplace, banking (e.g., improper service charges), business law (e.g., price fixing), and securities law (e.g., insider trading).

Figure 23.1 sets out the basic requirements that must be met before a class action receives **certification** by the court to allow the various claims to be joined together in a class action.²³

Class Action Suits



Legal Representation

If you sue or have been sued, you need to choose who will be your legal representative. Although you can represent yourself, an old expression states that, if you do, you have “a fool for a lawyer and a fool for a client.” Therefore, most litigants are represented by either a lawyer or a paralegal.

Procedures Before a Trial

The legal action begins with the filing of a **statement of claim**, in which the **plaintiff** (the person bringing forward the dispute) sets out the facts that allegedly have given rise to the cause of action and the plaintiff’s damages.

The **defendant** (the person being complained about) responds by filing a **statement of defence**, in which the defendant outlines his or her version of the facts complained about by the plaintiff. The defendant may also file a **counterclaim**, a document that outlines any complaint the defendant wishes to counter against the complaint of the plaintiff.

The plaintiff then files a **reply**, which outlines the plaintiff's response to the version of the facts set out by the defendant in his or her Statement of Defense. If a Counterclaim was made, the plaintiff also files a **defenses to counterclaim**, in which the plaintiff outlines his or her version of the facts complained about by the defendant in the Counterclaim.

These documents form the **pleadings**, the documents that provide the information each party intends to prove in court. If, after receiving the basic pleadings, the parties are still not sure what the other side has in mind, a **demand for particulars** may be used to require the other side to provide additional information.

There are also **examinations for discovery**, in which parties examine each other to further narrow the issues and decide whether to proceed with a trial. During discoveries, information is gathered under oath outside of the court, with the parties and their representatives meeting before a licensed legal reporter. Each party must also produce a list of witnesses and relevant documents. Since many of the documents are in electronic form, production of these documents may be referred to as **e-discovery**. Each party learns about the strength of the other party's case, which enables the parties to make an informed decision about whether to settle or press forward.

A **settlement** occurs when the parties agree to resolve their dispute out of court. The vast majority of claims—more than 95%—are settled out of court.²⁴ The legal system is designed to encourage settlements because of the cost and time involved in using the court system. After the examinations for discovery, the judge may meet with the parties at a **pre-trial conference** to summarize the case and narrow down and/or resolve the issues between the two parties. The judge may also indicate which party is likely to win if the case goes to trial, thus encouraging the likely loser to settle. Depending on the jurisdiction, a pre-trial conference may be required, or it may be initiated either by the parties or the judge. Since 1999, Ontario has had a **mandatory mediation program (MMP)**, which applies to most claims brought in large urban centres. Under the MMP, the parties must meet with a **mediator** (a neutral third party) within 90 days after the defence has been filed. Even when this process does not produce a settlement, it is likely to speed up the litigation process.

The Trial

A **trial** is an oral hearing of the issues by a judge alone, or by a judge and jury, to render a judgment on the matter. If a jury is used, the judge determines the law, while the jury is responsible for finding the facts and applying the law.

The plaintiff is the first to present his or her evidence to the judge. This involves the plaintiff and the plaintiff's witnesses taking the stand and answering questions from the plaintiff's lawyer under oath. The plaintiff and the plaintiff's witnesses are then **cross-examined** by the defendant's lawyer. Following the plaintiff, the defendant has an opportunity to present his or her version of the facts to the judge and call witnesses. Once the defendant and the defendant's witnesses have been questioned by the defendant's lawyer, they are cross-examined by the plaintiff's lawyer.

Rules of evidence apply to determine the **admissible evidence** that may be provided in support of an argument. Ordinary witnesses may testify only about the facts they know first-hand, while expert witnesses may provide information and opinions based on the evidence. The courts also do not normally listen to **hearsay evidence** (information that a witness heard from another person). As well, if a party attempts to introduce surprise evidence, the court may refuse to hear it or may delay

proceedings to give the other side an opportunity to reply and, in addition, may penalize the party with loss of costs.

The **burden of proof** in a non-criminal action is on the plaintiff. To win, the plaintiff must establish the facts that prove the plaintiff's case and then prove the case in law. The plaintiff must prove his or her complaint on a **balance of probabilities**. This means that the "defendant will be held liable only if the scales are tipped in the plaintiff's favour."²⁵ (This is in contrast to criminal cases, where the higher standard of **beyond a reasonable doubt** is imposed. In complex cases, the judge will **reserve judgment** and postpone giving a decision until after the court hearing ends and the judge has had time to review the evidence.

In civil litigation, a variety of remedies are available, as illustrated in Figure

Remedies in Civil Litigation

Remedy	Purpose
Compensatory damages	Financially compensate for a loss.
Punitive damages	Punish the party for acting very badly.
Nominal damages	Symbolically recognize that the party acted wrongfully even though the other party did not suffer any loss/harm.
Specific performance	Require the party to fulfill its obligation or promise.
Injunction	Require the party to act or not act in a particular way.
Rescission	Terminate a contract.

The winning party is also normally awarded **costs**, the expenses incurred by it during the litigation. However, the costs are usually **partial indemnity costs**, which only partially indemnify (usually around 40 to 50%) the winner for fees and disbursements paid to his or her lawyer. In exceptional cases, if the action is deemed to be frivolous or vexatious, or if a reasonable settlement offer is rejected, **substantial indemnity costs** may be awarded (usually around 65 to 75% of the winner's actual costs). Neither of these costs in any way compensates the winner for the time, energy, and emotional toll that a court case can take. Thus, in the end, it may be questionable whether the winner really won at all.

Appeals

An appeal must be requested within a certain time limit, usually within 30 days after the trial court renders its decision. The person who challenges the decision of the lower court is the **appellant**, and the person who defends the original decision is the **respondent**. The **appellate court (appeal court)** decides whether a mistake was made in the trial court. Normally, appeals are heard by at least three judges. The judges hear and read arguments from the parties or their lawyers, but do not hear witnesses or receive evidence. Generally speaking, appeal courts accept the findings of fact of the trial judge and reconsider only the application of the law. However, sometimes an appeal may be launched on the basis that the judge made procedural errors such as excluding important evidence or admitting improper evidence or, more rarely, on the basis that the evidence does not support the judge's finding of fact.

Alternative Dispute Resolution

Alternate dispute resolution (ADR) refers to private procedures to resolve disputes without going to court. The advantages of ADR include speed, reduced cost, choice of mediator or adjudicator, confidentiality (not generating bad publicity or divulging confidential information), and the preservation of ongoing relations between the two parties.²⁷ ADR may be preferable because the outcome of a trial is unpredictable, given the number of factors that go into a trial. Furthermore, sometimes no amount of money awarded in damages by a judge will make the situation right, and ADR may allow for an alternative outcome, such as an explanation and an apology.²⁸ Finally, ADR may allow for a win-win resolution.²⁹

There are three major types of ADR:

1. **Negotiation** does not involve a third party, nor is there any guarantee of binding resolution. It is the most common type of ADR since business people routinely settle their differences through discussion.

Mediation is a process by which a neutral third party who is acceptable to both sides assists them in reaching a settlement by clarifying issues, outlining the strengths and weaknesses of both sides, and suggesting possible solutions. The mediator does not render a decision. Mediation is usually voluntary but may be required by contract or, as is sometimes the case in Ontario, by law.

3. **Arbitration** is a process where the parties agree to be bound by the decision of a neutral third party who adjudicates the matter, although they may bear right to appeal to the courts. The arbitrator, who is chosen by the parties for his or her expertise in an area, hears witnesses and reviews evidence. Again, arbitration may be required by contract or law. For example, pursuant to the Canadian Motor Vehicle Arbitration Plan (CAMVAP), contracts between customers and dealers require disputes to be arbitrated before that body rather than through litigation.

Increasingly, mediation and arbitration are combined into Med-Arb, a two-step process that first attempts mediation but, if that does not work, empowers the mediator to impose a binding solution.³⁰

Administrative Tribunals

An **administrative tribunal** is a body that resolves disputes arising in administrative law. It is sometimes said to exercise a "quasi-judicial" function. It can make binding decisions that affect legal rights but generally operates more informally than courts in that, for instance, strict rules of evidence typically don't apply. Thus, it is "somewhere between a government and a court."³¹ The members of a tribunal are usually selected by the parties or by a statutory process, and are appointed on the basis of special knowledge or extensive experience in an area. Tribunal decisions are highly respected and not easily overturned. If a party is dissatisfied with a tribunal decision, the party can sometimes ask a court for judicial review.

A court will apply one of two standards during a judicial review. If it uses a **reasonableness standard**, the court will defer to the tribunal's expertise and will overturn only those tribunal decisions that are unreasonable. On the other hand, a **correctness standard** does not require judicial deference, and the court is free to impose the "correct" judgment. The latter standard is used for general issues of law that are not within the tribunal's area of special knowledge.

The government often inserts a **privative clause** into legislation that creates and empowers a tribunal. Such a clause attempts to prevent a court from exercising judicial review over a tribunal decision. If the clause is properly drafted, the tribunal’s jurisdiction is “final and conclusive” and not usually subject to judicial review.

THE LAW OF TORTS

INTRODUCTION TO TORT LAW

What is a Tort?

The word **tort** derives from the French word *tort*, meaning “wrong.” DuPlessis and O’Byrne define a tort as “any harm or injury caused by one person to another—other than through breach of contract—and for which the law provides a remedy.”³² McInnes et al. define a tort as “a failure to fulfill a private obligation that was imposed by law.”³³ Smyth et al. conclude that “there is no entirely satisfactory definition of “tort” but define it as a wrongful act done to the person or property of another.”³⁴ Willes and Willes also emphasize that the area of tort law is “so broad that to determine its limits with any degree of precision would be an impossible task” but that tort law has characterized a tort as a “wrong committed against another, or against the person’s property or reputation, either intentionally or unintentionally.”³⁵

The basic premise of tort law is as follows: An obligation in tort law is owed to a person (e.g., there is an obligation to provide a client with sound accounting and business advice). If that obligation is broken, the accountant is a **tortfeasor** (one who has committed a tort), and the client would be entitled to sue the accountant for any injury or loss suffered. If the client wins the lawsuit, the court will hold the accountant liable and will probably order the accountant to pay damages to the client.

Although a tort and a crime may arise from the same set of facts (e.g., hitting someone involves both the tort of battery and the crime of assault; taking someone’s golf clubs is both a tort of conversion and a crime of theft), it is important to distinguish between the two.

Figure 2-6 draws four key comparisons.

According to the Supreme Court of Canada, “A primary object of the law of tort is to provide compensation to persons who are injured as a result of the actions of others.”³⁶ A second reason why tort law exists is to deter individuals from failing to fulfil private obligations.

Figure 2-6: Tort vs. Crime³⁷

	Relevant law	Obligation	Parties involved if obligation is broken	Usual Remedy
Tort	Private law	Defendant owes an obligation to plaintiff	Plaintiff sues defendant	Compensatory damages (usually money)
Crime	Public law	Accused owes an obligation to society	Government prosecutes accused	Punishment (e.g., fine, probation, imprisonment)

Since both torts and contracts involve private obligations, it is also necessary to distinguish between torts and contracts. Both torts and contracts involve **primary obligations** that tell people how they ought to act and **secondary obligations** that tell people how they must act after breaking their primary obligations. Figure identifies four important differences between torts and contracts.

Tort vs. Contract

	Source of Obligation	Enforceability	Compensatory Damages	Risk Management
Tort	Imposed by law	Enforceable even if the parties have no agreement	Place plaintiff in same position as if tort had not occurred	May take a person by surprise and require more than person is able to bear
Contract	Voluntarily created by parties	Enforceable only by or against a party to the contract	Place plaintiff in same position as if contract had been performed	Obligations are known in advance and can be limited to promises that can be fulfilled

Contracts are enforceable only by parties to a contract under the **doctrine of privity**. More will be said about this in the next section on contracts.

Tort damages are backward looking, placing the plaintiff in the position he or she would have been in had the tort not occurred, whereas in contracts, damages are forward looking, placing the plaintiff in the position he or she would have been in had the contract not been breached. Managers are expected to anticipate the torts that are likely to occur in the course of operating their businesses and to make provisions for any liability that might arise as a result of those torts, either through insurance or self-funding.

Contracts are enforceable only by parties to a contract under the **doctrine of private**. More will be said about this in the next section on contracts.

Tort damages are backward looking, placing the plaintiff in the position he or she would have been in had the tort not occurred, whereas in contracts, damages are forward looking, placing the plaintiff in the position he or she would have been in had the contract not been breached. Managers are expected to anticipate the torts that are likely to occur in the course of operating their businesses and to make provisions for any liability that might arise as a result of those torts, either through insurance or self-funding.

fault schemes also respond to complaints about the cost and inefficiency of the adversarial tort law system. "Studies suggest that less than one-third of all the money involved in the tort system is actually used for compensating injuries.

On the other extreme, responding to the pressure of social needs has resulted in the principle of **vicarious liability**, to be discussed in more detail shortly, where an employer may be held liable for torts committed by employees in the course of their employment.

Main Types of Torts

There are three main categories of torts as shown in Figure 2-8. Each of these will be discussed in more detail later on.

Figure Main Categories of Torts

Figure 2-8: Main Categories of Torts

Type	Necessary to prove:	Examples
Intentional torts occur when a person intentionally acts in some ways.	Generally that the person intended to do the specific act; in certain intentional torts, that the person intended the harm that resulted.	Assault, trespass to land, interference with contractual relations, deceit.
Negligence torts occur when a person acts carelessly.	That a reasonable person would not have acted that way.	Negligence, professional negligence, and product liability.
Strict liability torts occur when a person does something wrong without intending to do so and without acting carelessly.	That the act occurred.	Extremely dangerous activities like storing hazardous goods or keeping wild animals.

GENERAL PRINCIPLES OF TORT LAW

Several general principles or concepts apply throughout tort law: burden of proof, liability, defenses, and remedies. Therefore, these concepts will be discussed before exploring specific torts.

Burden of Proof

Since torts are civil actions rather than criminal actions, the plaintiff must prove his or her case on a **balance of probabilities**. In numerical terms, this means that there is a better than 50% chance that the plaintiff was harmed by the defendant.⁴⁵

In certain circumstances, because it can be difficult for a plaintiff to know all of the particulars about a tort committed against him or her, the plaintiff may initially meet this burden of proof using circumstantial evidence. The burden of proof then shifts to the defendant to prove—also on a balance of probabilities—that he or she was not at fault.⁴⁶

Liability

Tort law recognizes both **primary liability**, which arises from one's own personal wrongdoing, and **vicarious liability**, which arises because of a relationship with the person who actually committed a wrong. It also recognizes that more than one person may be responsible for a tort (**joint tortfeasors**) and that the defendant may be at least partially to blame for the harm that has happened (**contributory negligence**). Finally, it also recognizes the role of **insurance** in managing risks associated with torts.

Vicarious Liability

Under the doctrine of **vicarious liability**, an employer is liable for a tort that was committed by an employee provided that the tort was committed during the course of the employee's employment. An employer is not liable for torts committed by independent contractors. The courts are inclined to view a person as an employee rather than an independent contractor, regardless of what the person is called by the employer, if:

1. The employer generally controls what is done, how it is done, when it is done, and where it is done.
2. The worker uses the employer's equipment and premises.

3. The worker is paid a regular wage or salary instead of a lump sum at the end of each project.
4. The worker is integrated into the employer's business and is not in his or her own business.⁴⁷

Under the doctrine of vicarious liability, tort victims may sue both the employer and the employee and may recover all or some of their damages from either defendant. If the employer pays, it can claim that amount from the employee. This is seldom done due to the employee's

inability to pay and the poor impact it would have on productivity if employees were fearful of being held liable for actions done in the course of their jobs.

Vicarious liability serves tort law's compensatory function by allowing collection from an employer who is more likely to be able to pay or to have insurance. It serves as a deterrent since it encourages employers to avoid very hazardous activities and to hire qualified people and engage in training. It is also viewed as fair to require a business to bear responsibility for the losses its activities create, even if those losses were due to the misdeeds of employees.⁴⁸

Liability and Joint Tortfeasors

When two or more people are held to be jointly responsible for the victim's loss, the plaintiff "can sue any or all of them, with recovery apportioned between the joint tortfeasors according to their level of responsibility." Nevertheless, the plaintiff can actually recover 100% of the judgment from any one of those defendants, thus making it possible for the plaintiff to collect from those in the best position to pay the damages.⁴⁹

Contributory Negligence

The plaintiff may be held by the court to be partially responsible for the harm or loss that was incurred. If the defendant's defence of contributory negligence is successful, the amount of damages awarded to the plaintiff will be reduced by the proportion for which the plaintiff is responsible. For example, if damages are \$25,000, and the plaintiff is held to be 20% responsible, the damages paid would actually be \$20,000.

Liability Insurance

In keeping with good risk management by businesses, it is considered prudent to purchase **liability insurance**. This is a "contract in which an insurance company agrees, in exchange for a price, to pay damages on behalf of a person who incurs liability."⁵⁰ Liability insurance also includes a **duty to defend**, whereby the insurance company pays the expenses related to lawsuits against the insured party.

While liability insurance contributes to the **compensatory function** of torts, which aims to fully compensate those who are wrongfully injured, it can also undermine the **deterrence function** when people know that their insurance companies will pick up the tab if something goes wrong. However, there may still be deterrents since excessive claims will translate into higher insurance premiums or difficulty obtaining insurance. Insurance contracts may also contain exclusions that shift some liability to the insurer.

Defences

More will be said about specific defenses when individual torts are discussed since the defence varies depending on the tort. However, there are a few common defenses:

- Contributory negligence - This was discussed earlier.

- **Consent**—The defendant either consented to the action or voluntarily assumed the risk inherent in the event that gave rise to the loss.

Limits to Damages in Torts

In tort law, there are various legal limits to compensation for losses suffered as not every conceivable loss of a plaintiff can be compensated. These include:

- **Lack of causation** —The defendant's action did not cause the plaintiff's damages.
- **Too remote** —The relationship between the defendant's action and the plaintiff's loss is too remote, i.e., the defendant could not have reasonably foreseen the type of damage that occurred.
- **Failure to mitigate** —Where the plaintiff fails to take reasonable steps to minimize losses, the damages awarded will be capped at what the court deems they would have been had the plaintiff mitigated his or her damages.

Remedies under Tort Law

Figure identifies the various categories of remedies available under tort law and their purposes

Figure: Tort Law Remedies and their Purposes



Compensatory Damages

Compensatory damages require the defendant to pay for the losses the plaintiff suffered as a result of the tort. As noted earlier when comparing torts and contracts, the goal is to put the plaintiff back to the position the plaintiff enjoyed before the tort occurred. There are two types: special and general.

Special damages compensate the victim for out-of-pocket expenses that are fairly easy to quantify, e.g., medical bills, the cost of repairing a car, or actual lost wages. **General damages** include more speculative items like future loss of earnings due to disability and non-pecuniary (non-monetary) losses such as awards for pain and suffering, loss of enjoyment of life, and loss of life expectancy.

Compensation will be awarded only if the defendant's wrongdoing caused the plaintiff to suffer a loss and if the connection between the tort and that loss is not too remote. A loss is **too remote** if a reasonable person in the position of the wrongdoer could not have reasonably anticipated the harm that flowed from the act. As well, it is in the plaintiff's best interest to take reasonable steps to **mitigate** the loss because the plaintiff will only be compensated for those losses that could not reasonably be avoided.

Punitive Damages

Punitive damages are rare. They are awarded to punish a defendant who has acted in a “harsh, vindictive, reprehensible and malicious” manner.⁵¹ The Supreme Court also requires that punitive damages be proportional to the tort and “no more than necessary to punish the defendant, deter wrongdoers, or convey denunciation of the defendant’s conduct.”⁵²

Nominal Damages

Nominal damages are nominal monetary amounts awarded to recognize that a tort was committed but that no damages occurred. They are restricted to intentional torts and strict liability torts.

Injunctions

Injunctions are court orders that require the offending party to do something or to refrain from doing something. They are used when compensatory damages are inadequate to replace what the plaintiff has lost. For instance, an injunction may restrain the defendant from trespassing on the plaintiff’s property; or in the case of **conversion of property** (wrongful exercise of control over another’s property), the court may order **restitution**, the restoring of the property to its rightful owner.

SECTION 2-3: INTENTIONAL TORTS

Intentional torts “involve intentional, rather than merely careless, conduct.” Intention does not always mean that the defendant intended to cause harm but may simply mean that the defendant “knew that a particular act would have particular consequences.” Figure 2-10 describes common intentional torts that are relevant to businesses.^{53 54}

Figure Intentional Torts



Tort	Description of Harmful Act	Defences
Assault	Reasonable belief that threat of offensive bodily contact (see battery) is imminent.	For both assault and battery: Informed and complete consent Necessity: act was justified by emergency.
Battery	Offensive bodily contact: touching plaintiff or plaintiff's clothing with fist, knife, bullet, etc.; applies to businesses that control crowds or rude customers and to medical doctors who perform procedures against a patient's wishes.	Self-defence; the force used must be reasonable Provocation: words and actions that would cause a reasonable person to lose self-control; this is a partial defence that would only reduce damages.
False Imprisonment	Complete physical restraint or psychological submission without authority, e.g., a security guard demands that a customer accompany him back inside store.	No actual confinement. Authority to arrest because crime had been committed.

Defamation	A published false and derogatory statement in spoken (slander) or written (libel) form.	Justification: statement was true Absolute privilege: statement was made in Parliament or court. Qualified privilege: statement was made in the course of duty, in the belief that it was true, and communicated only to those who needed to know (e.g., reference letter). Fair comment: statement expressed an opinion on matter of public interest.
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Some of the torts in Figure (e.g., assault and battery, defamation) also give rise to criminal prosecution, but the Crown is concerned only with the criminal aspect. The victim must pursue an action in civil court to obtain compensation for any losses.

Regarding the tort of defamation, use of the Internet to make and disseminate defamatory statements can make it difficult to identify and locate the maker of the statements, but the full range of remedies is available once defamation is proven. Compared to the traditional tort of defamation, the harm associated with **Internet defamation** is not limited to a particular geographic area, and damages awarded may reflect this. In a 2008 case, *Griffin v. Sullivan*, the B.C. Supreme Court “awarded the injured plaintiff not only substantial general damages, damages for breach of privacy, special damages, and aggravated damages, but an injunction as well.” Surprisingly, until very recently Canada had not yet recognized a general tort of **invasion of privacy**. The courts have been reluctant to recognize such a tort because they want to support freedom of expression and freedom of information. They also want to balance the interests of both parties. However, privacy has been indirectly related to several torts. A photographer who sneaks onto someone's land to take unauthorized pictures commits the tort of trespass. Employees who publish embarrassing information about their employer's private life may be guilty of breach of confidence. English courts have also recognized a tort of abuse of information. Unauthorized use of celebrity images to sell products may be misappropriation of personality.

In a unanimous decision, in January 2012, the Ontario Court of Appeal recognized a tort of invasion of privacy. Part of the rationale was that “The internet and digital technology have brought an enormous change in the way we communicate and in our capacity to capture, store, knew that loss or harm was reasonably foreseeable. Some of these business torts may also give rise to an action

for breach of contract. While the victim may sue the defendant for both a tort and a breach of contract, the plaintiff cannot recover full damages under both actions. This will be discussed in more detail in the section on contract law.

Figure 2.11: Business Torts

Tort	Description	Elements of Proof
Conspiracy	Two or more people agree to act together to cause the plaintiff financial loss.	If act is otherwise lawful: primary purpose was to hurt plaintiff. If act is otherwise unlawful: defendants should know the act might hurt plaintiff.
Intimidation	Threat to commit an unlawful act directed against plaintiff (two-party intimidation) or a third party (three-party intimidation).	Threatened party gives in to threat. Plaintiff suffers a loss because of threat.
Interference with contractual relations (inducement to breach of contract)⁶⁰	Disruption of a contract between plaintiff and a third party by persuading a third party to break its contract with plaintiff; e.g., hire a third party for a job that will make it impossible for that person to work for plaintiff.	Defendant knows about contract. Defendant intends to cause third party to breach contract. Defendant actually causes third party to breach contract. Plaintiff suffers a loss because of breach.



Unlawful interference with economic relations	Unlawful act committed for the purpose of causing plaintiff to incur an economic loss; this is a more general tort than the previous three.	There is intent to injure plaintiff. There is an unlawful or illegal act or, more generally, something that a person is not entitled to do. Plaintiff suffers an economic loss.
Deceit	Making a false statement—includes telling a half-truth and failing to update information; under the general rule of caveat emptor (buyer beware), a seller is usually not obligated to volunteer information.	Defendant knows statement is false or acted recklessly and without regard to the truth. Defendant intends to mislead plaintiff. Plaintiff suffers a loss as a result of reasonable reliance on statement.
Passing Off	Represent another's goods or services as one's own, either expressly or by implication.	Goodwill exists in terms of look or distinctiveness of plaintiff's product. The public is deceived by this misrepresentation. Plaintiff suffers actual or potential loss.

Injurious falsehood (slander of quality; product defamation)	Falsely discredit another person's products or services, causing potential customers to take business elsewhere (e.g., negative advertising).	False statement was made with malice or improper motive; a reckless disregard for the truth or falsity of the statement is sufficient. Defendant's statement caused plaintiff to suffer a loss.
Occupier's Liability	Failure by occupier of premises to take adequate precautions to protect visitors.	Varies by jurisdiction and may depend on whether the visitor is a trespasser, licensee/invitee, or contractual entrant.

In Ontario, Alberta, British Columbia, Manitoba, Nova Scotia, and Prince Edward Island, occupiers' liability is now covered by legislation. The basic principles of such legislation are that it covers both activities that occur on the premises as well as the condition of the premises (only the latter is covered under common law). The same standard of reasonable care applies to all visitors, but the standard imposed depends on the potential danger to the visitor, the occupier's cost of removing the danger, the purpose of the visit, and the nature of the premises. For example, in Ontario, an exemption within the statute requires only that the occupier refrain from intentionally hurting certain types of trespassers. Occupiers can normally avoid liability by issuing a warning, such as the warning signs posted at a ski resort or parking garage.

NEGLIGENCE

Negligence is a careless act that causes harm to another person. As with other torts, the victim is entitled to take legal action to be compensated for that loss or injury. In adjudicating tort cases, the goal is to find the right balance that appropriately compensates victims of negligence yet does not discourage legitimate activity or make the legal standards for businesses too onerous. While the term "professional negligence" is often used, there is no separate tort by that name; it merely refers to negligence committed by a professional person like an accountant or lawyer.

Burden of Proof

To succeed in a negligence action, the plaintiff must prove that the defendant: 1) owed a duty of care; 2) breached the standard of care; and 3) caused harm to the plaintiff. Each of these elements will be discussed in more detail in the following pages.

Step 1: Was a Duty of Care Owed?

According to the **neighbour principle**, “a defendant owes a duty of care to anyone who might be reasonably affected by the defendant’s conduct.”⁶² Based on Donoghue v. Stevenson, the Canadian courts have developed a unique test for whether a duty of care is owed. In the first place, the judge will ascertain whether or not the duty of care question has already been answered for the particular type of case being litigated. For example, a duty of care is owed by a beverage bottle to a consumer. If there is no existing precedent, a duty of care will be established only if 1) it is reasonably foreseeable that the plaintiff could be injured by the defendant’s carelessness, 2) there was a relationship of sufficient proximity, and 3) there are no public policy grounds for denying the duty of care.⁶³

Reasonable Foreseeability

This is an objective test of whether a reasonable person in the defendant’s position would have recognized the possibility that his activities might injure the plaintiff. The theory is that the plaintiff should not be denied compensation simply because the defendant was not paying attention; on the other hand, it would be impossible for any defendant to foresee all possible dangers.

Proximity or Causation

Put simply, “there must somehow be a close and direct connection between the parties.” Therefore, depending on the facts of the situation, a relationship of proximity may arise from:

- Physical proximity;
- A social relationship (e.g., parent and child);
- A commercial relationship (e.g., store and patron);
- A direct causal connection between the defendant’s carelessness and the plaintiff’s injury; and/or
- The plaintiff’s reliance on the fact that the defendant represented that it would act in a certain way.

In establishing proximity, the law treats careless statements differently from careless actions. This is because the risks associated with statements are often far less apparent than the risk associated with actions. As well, the impact of a careless statement can be almost limitless whereas the risks associated with physical actions are limited in time and space. Finally,

Step 2: Was the Standard of Care Breached?

The **standard of care** indicates how a defendant should act; it is **breached** when the defendant acts less carefully.

The standard of care is based on the mythical **reasonable person**, someone of “normal intelligence whomakesprudence a guide to his conduct.”⁶⁷ In other words, it is “someone of average intelligence who will prudently exercise reasonable care, considering all of the circumstances.” Some of the relevant factors pertaining to the reasonable person test are shown in The test is an objective test. It does not make allowances for a defendant’s personal characteristics, including, to a certain extent, mental or physical disability. For instance, the law would not expect a blind person to see but

it would expect the person not to drive a car. Children are expected to act like a reasonable child of a similar age, intelligence, and experience.

The standard relates to how a reasonable person would act in similar circumstances.

A reasonable person takes precautions against reasonably foreseeable risk even if they are unlikely to occur.

A reasonable person takes greater care the more likely harm is to occur and the more severe the harm might be.

□ A reasonable person takes affordable precautions.



Basic principles of marketing and management

Definition and Core Concept, Marketing Tools, P's-Product, Price, Place and Promotion

INTRODUCTION

'Marketing is so basic that it cannot be considered as a separate function. It is the whole business seen from the point of view of its final result, that is, from the customer's point of view'. - Peter Drucker.

Marketing is indeed an ancient art; it has been practiced in one form or the other, since the days of Adam and Eve. Today, it has become the most vital function in the world of business. Marketing is the business function that identifies unfulfilled needs and wants, defines and measures their magnitude, determines which target market the organization can best serve, decides on

appropriate products, services and programmes to serve these markets, and call upon everyone in the organization to think and serve the customer.

Marketing is the force that harnesses a nation's industrial capacity to meet the society's material wants. It uplifts the standard of living of people in society. Marketing must not be seen narrowly as the task of finding clever ways to sell the company's products. Many people confuse marketing with some of its subfunctions, such as advertising and selling. Authentic marketing is not the art of selling what you make but knowing what to make.

It is the art of identifying and understanding customer needs and creating solutions that deliver satisfaction to the customers, profit to the producers, and benefits for the stakeholders. Market leadership is gained by creating customer satisfaction through product innovation, product quality, and customer service. If these are absent, no amount of advertising, sales promotion, or salesmanship can compensate.

William Davidow observed: 'While great devices are invented in the laboratory, great products are invented in the marketing department'. Too many wonderful laboratory products are greeted with yawns or laughs. The job of marketers is to 'think customer' and to guide companies to develop offers that are meaningful and attractive to target customers. Already sea changes have been taking place in the global economy.

Old business road maps cannot be trusted. Companies are learning that it is hard to build a reputation and easy to lose it. The companies that best satisfy their customers will be the winners.

It is the special responsibility of marketers to understand the needs and wants of the market place and to help their companies to translate them into solutions that win customers approval. Today's smart companies are not merely looking for sales; they are investing in long term, mutually satisfying customer relationships based on delivering quality, service and value.

1.3 Definitions and terminology

There are as many definitions of marketing as many scholars or writers in this field. It has been defined in various ways by different writers. There are varying perceptions and viewpoints on the meaning and content of marketing. Some important definitions are:

- Marketing is a social and managerial process by which individuals and groups obtain what they need and want through creating, offering and exchanging products of value with others.
- Marketing is the process by which an organization relates creatively, productively and profitably to the market place
- Marketing is the art of creating and satisfying customers at a profit.
- Marketing is getting the right goods and services to the right people at the right places at the right time at the right price with the right communication and promotion.
- Much of marketing is concerned with the problem of profitably disposing of what is produced.
- Marketing is the phenomenon brought about by the pressures of mass production and increased spending power.
- Marketing is the performance of business activities that direct the flow of goods and services from the producer to the customer.
- Marketing is the economic process by which goods and services are exchanged between the maker and the user and their values determined in terms of money prices.

- Marketing is designed to bring about desired exchanges with target audiences for the purpose of mutual gain.
- Marketing activities are concerned with the demand stimulating and demand fulfilling efforts of the enterprise.
- Marketing is the function that adjusts an organization's offering to the changing needs of the market place.
- Marketing is a total system of interacting business activities designed to plan, promote, and distribute need satisfying products and services to existing and potential customers.
- Marketing origination with the recognition of a need on the part of a consumer and termination with the satisfaction of that need by the delivery of a usable product at the right time, at the right place, and at an acceptable price. The consumer is found both at the beginning and at the end of the marketing process.
- Marketing is a viewpoint, which looks at the entire business process as a highly integrated effort to discovery, arouse and satisfy consumer needs.

It is obvious from the above definitions of marketing that marketing has been viewed from different perspective. Now it is imperative to discuss the important terms on which definition of marketing rests: needs, wants, and demands; products; value, cost, and satisfaction; exchange, transactions and relationships; markets; and marketers. These terms are also known as the core concepts in marketing.

Needs, wants and demands

Marketing starts with the human needs and wants. People need food, air, water, clothing and shelter to survive. They also have a strong desire for recreation, health, education, and other services. They have strong performances for particular versions and brands of basic goods and services.

A human need is a state of felt deprivation of some basic satisfaction. People require food, clothing, shelter, safety, belonging, esteem and a few other things for survival. These needs are not created by their society or by marketers; they exist in the very texture of human biology and the human condition. Wants are desires for specific satisfiers of these deeper needs.

For example, one needs food and wants a pizza, needs clothing and wants a Raymond shirt. These needs are satisfied in different manners in different societies. While people needs are few, their wants are unlimited. Human wants are continually shaped and reshaped by social forces and institutions. Demands are wants for specific products that are backed up by an ability and willingness to buy them. For example, many people want to buy a luxury car but they lack in purchasing power.

Companies must therefore measure not only how many people want their products, but, how many would actually be willing to buy and finally able to buy it. Marketers do not create need, they simply influence wants. They suggest to consumer that a particular product or brand would satisfy a person's need for social status. They do not create the need for social status but try to point out that a particular product would satisfy that need. They try to influence demand by making the product attractive, affordable, and easily available.

Products

People satisfy their needs and wants with products. Product can be defined as anything that can be offered to someone to satisfy a need or want. The word product brings to mind a physical object, such as T.V., Car, and Camera etc. The expression products and services are used

distinguish between physical objects and intangible ones. The importance of physical products does not lie in owning them rather using them to satisfy our wants. People do not buy beautiful cars to look at,

but because it supply transportation service. Thus, physical products are really vehicles that deliverservice to people. Services are also supplied by other vehicles such as persons, places, activities, organizations and ideas. If people are bored, they can go to a musical concert (persons) for entertainment, travel to beautiful destination like Shimla (place), engage in physical exercise (activity) in health clubs, join a laughing club (organization) or adopt a different philosophy about life (idea).

Services can be delivered through physical objects and other vehicles. The term product covers physical products, service products, and other vehicles that are capable of delivering satisfaction of a need or want. The other terms also used for products are offers, satisfiers, or resources. Manufacturers pay more attention to their physical products than to the services produced by these products.

They love their products but forget that customers buy them to satisfy their need. People do not buy physical object for their own sake. A tube of lip stick is bought to supply a service: helping the person to look better. A drill is bought to supply a service: producing holes. The marketer's job is to sell the benefits or services built into physical products rather than just describe their physical features. **Value, cost, and satisfaction**

How do consumers choose among the various products that may satisfy a given need is very interesting phenomenon. If a student needs to travel five kilometers to his college every day, he may choose a number of products that will satisfy this need: a bicycle, a motorcycle, automobile and a bus. These alternatives constitute product choice set. Assume that the student wants to satisfy different needs in traveling to his college, namely speed, safety, ease and economy.

These are called the need set. Each product has a different capacity to satisfy different needs. For example, bicycle will be slower, less safe and more effortful than an automobile, but it would be more economical. Now, the student has to decide on which product delivers the most satisfaction. Here comes the concept of value.

The student will form an estimate of the value of each product in satisfying his needs. He might rank the products from the most need satisfying to the least need satisfying. Value is the consumer's estimate of the product's overall capacity to satisfy his or her needs. The student can imagine the characteristic of an ideal product that would take him to his college in a split second with absolute safety, no effort and zero cost.

The value of each actual product would depend on how close it came to this ideal product. Assume the student is primarily interested in the speed and ease of

getting to college. If the student was offered any of the above mentioned products at no cost, one can predict that he would choose an automobile.

Here comes the concept of cost. Since each product involves a cost, the student will not necessarily buy automobile. The automobile cost substantially more than bicycle or motorcycle. Therefore, he will consider the product's value and price before making a choice.

He will choose the product that will produce the most value per rupee. Today's consumer behavior theorists have gone beyond narrow economic assumptions of how consumers form value in this mind and make product choices. These modern theories on consumer behaviour

are important to marketers because the whole marketing plan rests on assumptions about how customers make choices. Therefore the concept of value, cost and satisfaction are crucial to the discipline of marketing.

Exchange, transactions and relationships

The fact that people have needs and wants and can place value on products does not fully explain the concept of marketing. Marketing emerges when people decide to satisfy needs and wants through

exchange. Exchange is one of the four ways people can obtain products they want. The first way is self production. People can relieve hunger through hunting, fishing, or fruit gathering. In this case there is no market or marketing. The second way is coercion. Hungry people can steal food from others.

The third way is begging. Hungry people can approach others and beg for food. They have nothing tangible to offer except gratitude. The fourth way is exchange. Hungry people can approach others and offer some resource in exchange, such as money, another food, or service. Marketing arises from this last approach to acquire products. Exchange is the act of obtaining a desired product from someone by offering something in return. For exchange to take place, five conditions must be satisfied:

- There are at least two parties.
- Each party has something that might be of value to the other party.
- Each party is capable of communication and delivery.
- Each party is free to accept or reject the offer.
- Each party believes it is appropriate or desirable to deal with the other party.

If the above conditions exist, there is a potential for exchange. Exchange is described as a value creating process and normally leaves both the parties better off than before the exchange. Two parties are said to be engaged in exchange if they are negotiating and moving towards an agreement.

The process of trying to arrive at naturally agreeable terms is called negotiation. If an agreement is reached, we say that a transaction takes place. Transactions are the basic unit of exchange.

A transaction consists of a trade of values between two parties. A transaction involves several dimensions; at least two things of value, agreed upon conditions, a time of agreement, and a place of agreement. Usually a legal system arises to support and enforce compliance on the part of the transaction.

A transaction differs from a transfer. In a transfer A gives X to B but does not receive anything tangible in return. When A gives B a gift, a subsidy, or a charitable contribution, we call this a transfer. Transaction marketing is a part of longer idea, that of relationship marketing. Smart marketers try to build up long term, trusting, 'win-win' relationships with customers, distributors, dealers and suppliers.

This is accomplished by promising and delivering high quality, good service and fair prices to the other party over time. It is accomplished by strengthening the economic, technical, and social ties between members of the two organizations.

The two parties grow more trusting, more knowledgeable, and more interested in helping each other. Relationship marketing cuts down on transaction costs and time. The ultimate outcome of relationship marketing is the building of a unique company asset called a marketing network.

A marketing network consists of the company and the firms with which it has built solid, dependable business relationships.

Markets

The concept of exchange leads to the concept of market. A market consists of all the potential customers sharing a particular need or want whom might be willing and able to engage in exchange to satisfy that need or want.

The size of market depends upon the number of persons who exhibit the need, have resources that interest others, and are willing to offer these resources in exchange for what they want. Originally the term market stood for the place where buyers and sellers gathered to exchange their goods, such as a village square.

Economists use the term market to refer to a collection of buyers and sellers who transact over a particular product or product class; i.e. the housing market, the grain market, and so on. Marketers, however, see the sellers as constituting the industry and the buyers as constituting the market. Business people use the term markets colloquially to cover various groupings of customers.

They talk need markets (such as diet-seeking market); product markets (such as the shoe market); demographic markets (such as the youth market); and geographic markets (such as the Indian market). The concept is extended to cover non-customer groupings as well, such as voter markets, labour markets, and donor markets.

Marketing, marketers, and marketing management

The concept of markets brings the full circle to the concept of marketing. Marketing means human activities taking place in relation to markets. Marketing means working with markets to actualize potential exchanges for the purpose of satisfying human needs and wants.

If one party is more actively seeking an exchange than the other party, we call the first party a marketer and the second party a prospect. A marketer is someone seeking a resource from someone else and willing to offer

something of value in exchange. The marketer is seeking a response from the other party, either to sell something or to buy something. Marketer can be a seller or a buyer.

Suppose several persons want to buy an attractive house that has just become available. Each would be a buyer will try to market himself for herself to be the one the seller selects. These buyers are doing the marketing. In the event that both parties actively seek an exchange, we say that both of them are marketers and call the

situation one of reciprocal marketing. In the normal situation, the marketer is a company serving a market of end users in the face of competitors. The company and the competitors send their

respective products and messages directly and/or through marketing intermediaries i.e. middlemen and facilitators to the end users.

Marketing management takes place when at least one party to a potential exchange gives thought to objectives and means of achieving desired responses from other parties. According to American Marketing Association, 'Marketing Management is the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to create exchanges that satisfy individual and organizational objectives'.

This definition recognizes that marketing management is a process involving analysis, planning, implementation, and control; that it covers ideas, goods and services; that it rests on the notion of exchange; and that the goal is to produce satisfaction for the parties involved.

Marketing concepts

Firms vary in their perceptions about business, and their orientations to the market place. This has led to the emergence of many different concepts of marketing. Marketing activities should be carried out under some well-thought out philosophy of efficient, effective, and responsible marketing. There are six competing concepts under which organizations conduct their marketing activity.

- 1. Exchange concept** The exchange concept of marketing, as the very name indicates, holds that the exchange of a product between the seller and the buyer is the central idea of marketing. While exchange does form a significant part of marketing, to view marketing as more exchange will result in missing out the essence of marketing. Marketing is much broader than exchange. Exchange, at best, covers the distribution aspect and the price mechanism. The other important aspects of marketing, such as, concern for the customer, generation of value satisfactions, creative selling and integrated action for serving customer, are completely overshadowed in exchange concept.
- 2. Production concept** It is one of the oldest concepts guiding sellers. The production concept holds that customers will favor those products that are widely available and low in cost. Managers of production-oriented organizations concentrate on achieving high production efficiency and wide distribution coverage. The assumption that consumers are primarily interested in product availability and low price holds in at least two types of situations. The first is where the demand for a product exceeds supply. Here consumers are more interested in obtaining the product than in its fine points. The suppliers will concentrate on finding ways to increase production. The second situation is where the product's cost is high and has to be brought down through increased productivity to expand the market.
- 3. The product concept** The product concept holds that consumers will favour those products that offer quality or performance. Managers in these product-oriented organizations focus their energy on making good products and improving them over time. These managers assume that buyers admire well-made product and can appraise product quality and performance. These managers are caught up in a love affair with their product and fail to appreciate that the market may be less "turned on" and may even be moving in different direction. The product concept leads to "marketing myopia", an undue concentration on the product rather than the need.

Railroad management thought that users wanted trains rather than transportation and overlooked the growing challenge of the airlines, buses, trucks, and automobiles. Slide-rule manufacturers thought that engineers wanted slide rules rather than the calculating capacity and overlooked the challenge of pocket calculators.

4. **The selling concept** The selling concept holds that consumers, if left alone, will ordinarily not buy enough of the organization's products. The organization must therefore an aggressive selling and promotion effort.

The concept assumes that consumers typically show buying inertia or resistance and have to be coaxed into buying more, and that the company has available a whole battery of effective selling and promotion tools to stimulate more buying. The selling concept is practiced most aggressively with "sought goods", those goods that buyers normally do not think of buying, such as insurance, encyclopedias, and funeral plots.

These industries have perfected various sales techniques to locate prospects and hard-sell them on the benefits of their product. Hard selling also occurs with sought goods, such as automobiles. Most firms practice the selling concept when they have overcapacity. Their aim is to sell what they make rather than make what they can sell.

Thus selling, to be effective, must be preceded by several marketing activities such as needs assessment, marketing research, product development, pricing, and distribution.

If the marketer does a good job of identifying consumer needs, developing appropriate products, and pricing, distributing, and promoting them effectively, these products will sell very easily.

When Atari designed its first video game, and when Mazda introduced its RX-7 sports car, these manufacturers were swamped with orders because they had designed the "right" product based on careful marketing homework. Indeed, marketing based on hard selling carries high risks.

It assumes that customers who are coaxed into buying the product will like it; and if they don't, they won't bad-mouth it to friends or complain to consumer organizations. And they will possibly forget their disappointment and buy it again. These are indefensible assumptions to make about buyers. One study showed that disappointed customers bad-mouth the product to even acquaintances, while satisfied customers may good-mouth the product to only three.

5. **The marketing concept** The marketing concept holds that the key to achieving organizational goals consists in determining the needs and wants of target markets and delivering the desired satisfactions more effectively and efficiently than competitors. Theodore Levitt drew a perceptive contrast between the selling and marketing concepts.

Selling focuses on the needs of the seller; marketing on the needs of the buyer. Selling is preoccupied with the seller's need to convert his product into cash; marketing with the idea of satisfying the needs of the customer by means of the product and the whole cluster of things associated with creating, delivering and finally consuming it.

- a. **Market focus:** No company can operate in every market and satisfy every need. Nor can it even do a good job within one broad market: Even mighty IBM cannot offer the best customer solution for every computer need. Companies do best when they define their target markets carefully. They do best when they prepare a tailored marketing program for each target market.

b. **Customer orientation:** A company can define its market carefully and still fail at customer-oriented thinking. Customer-oriented thinking requires the company to define customer needs from the customer point of view, not from its own point of view. Every product involves tradeoffs, and management cannot know what these are without talking to and researching customers. Thus a car buyer would like a high-performance car that never breaks down, that is safe, attractively styled, and cheap. Since all of these virtues cannot be combined in one car, the car designers must make hard choices not on what pleases them but rather on what customers prefer or expect. The aim, after all, is to make a sale through meeting the customer's needs. Why is it supremely important to satisfy the customer? Basically because a company's sales each period come from two groups: customers and repeat customers. It always costs more to attract new customers than to retain current customers. Therefore customer retention is more critical than customer attraction.

c. **Coordinated marketing:** Unfortunately, not all the employees in a company are trained or motivated to pull together for the customer. Coordinated marketing means two things. First, the various marketing functions—sales force, advertising, product management, marketing research, and so on—must be coordinated among themselves.

Too often the sales force is mad at the product managers for setting “too high a price” or “too high a volume target”, or the advertising director and a brand manager cannot agree on the best advertising campaign for the brand. These marketing functions must be coordinated from the customer point of view.

Second, marketing must be well coordinated with the other departments. Marketing does not work when it is merely a department; it only works when all employees appreciate the effect they have on customer satisfaction.

d. **Profitability:** The purpose of the marketing concept is to help organizations achieve their goals. In the case of private firms, the major goal is profit; in the case of non-profit and public organizations, it is surviving and attracting enough funds to perform their work.

Now the key is not to aim for profits as such but to achieve them as a byproduct of doing the job well. This is not to say that marketers are unconcerned with profits.

Quite the contrary, they are highly involved in analyzing the profit potential of different marketing opportunities. Whereas salespeople focus on achieving sales-volume goals, marketing people focus on identifying profit-making opportunities.

6. **The societal marketing concept** In recent years, some people have questioned whether the marketing concept is appropriate organizational philosophy in an age of environmental deterioration, resource shortages, explosive population growth, world hunger and poverty, and neglected social services.

The question is whether companies that do an excellent job of sensing, serving, and satisfying individual consumer wants are necessarily acting in the best long-run interests of consumers and society.

The societal marketing concept holds that the organization's task is to determine the needs, wants, and interests of target markets and to deliver the desired satisfactions more effectively and efficiently than competitors in a way that preserves or enhances the consumer's and the society's well-being.

The societal marketing concept calls upon marketers to balance three considerations in setting their marketing policies, namely, company profits, consumer want

satisfaction, and public interest. Originally, companies based their marketing decisions largely on immediate company profit calculations.

Then they began to recognize the long-run importance of satisfying consumer wants, and this introduced the marketing concept. Now they are beginning to factor in society's interests in their decision-making.

The societal marketing concept calls for balancing all three considerations. A number of companies have achieved notable sales and profit gains through adopting and practicing the societal marketing concept.

Marketing Mix

The marketer delivers value to the customer basically through his market offer. He takes care to see that the offer fulfills the needs of the customer. He also ensures that the customer perceives the terms and conditions of the offer as more attractive vis-à-vis other competing offers.

Marketing Mix is the set of marketing tools that the firm uses to pursue its marketing objectives in the target market. It is the sole vehicle for creating and delivering customer value.

It was James Culliton, a noted marketing expert, who coined the expression marketing mix and described the marketing manager as a mixer of ingredients. To quote him, "The marketing man is a decider and an artist—a mixer of ingredients, who sometimes follows a recipe developed by others and sometimes prepares his own recipe.

And, sometimes he adapts his recipe to the ingredients that are readily available and sometimes invents some new ingredients, or, experiments with ingredients as no one else has tried before'. The dynamics of the marketing process and the versatility of the marketing process and the versatility of the marketing mix tool cannot be described any better.

Subsequently Niel H. Borden, another noted marketing expert, popularized the concept of marketing mix. It was Jerome McCarthy, the well known American Professor of marketing, who first described the marketing mix in terms of the four Ps. He classified the marketing mix variables under four heads, each beginning with the alphabet 'p'.

- Product
- Price
- Place (referring to distribution)
- Promotion

McCarthy has provided an easy to remember description of the marketing mix variables. Over the years, the terms-Marketing mix and four Ps of marketing-have come to be used synonymously.

- **Product:** The most basic marketing mix tool is product, which stands for the firm's tangible offer to the market including the product quality, design, variety features, branding, packaging, services, warranties etc.
- **Price:** A critical marketing mix tool is price, namely, the amount of money that customers have to pay for the product. It includes deciding on wholesale and retail prices, discounts, allowances, and credit terms. Prices should be commensurate with the perceived value of the offer, or else buyer will turn to competitors in choosing their products.
- **Place:** This marketing mix tool refers to distribution. It stands for various activities the company undertakes to make the product easily available and accessible to target

- customers. It includes deciding on identify, recruit, and link various middlemen and marketing facilitators so that products are efficiently supplied to the target market.
- **Promotion:** The fourth marketing mix tool, stands for the various activities the company undertakes to communicate its products' merits and to persuade target customer to buy them. It includes deciding on hire, train, and motivate sales people to promote its products to middlemen and other buyers. It also includes setting up communication and promotion programs consisting of advertising, personal selling, sales promotion, and public relations. Marketing mix or 4 Ps of marketing is the combination of a product, its price, distribution and promotion. It must be designed by marketers in such a manner that these four elements together must satisfy the needs of the organization's target market, and at the same time, achieve its marketing objectives.

Market segmentation, targeting and positioning and analyzing the marketing environment

Introduction

A market consists of people or organizations with wants, money to spend, and the willingness to spend it. However, most markets the buyers' needs are not identical. Therefore, a single marketing program for the entire market is unlikely to be successful. A sound marketing program starts with identifying the differences that exist within a market, a process called, market segmentation, and deciding which segments will be treated as target markets. Market segmentation is customer oriented

and consistent with the marketing concept. It enables a company to make more efficient use of its marketing resources. After evaluating the size and potential of each of the identified segments, it targets them with a unique marketing mix. The marketer must somehow persuade the members of each segment that its product will satisfy their needs better than competitive products.

To do so, marketers attempt to develop a special image for their products in the consumer's mind relative to competitive products: that is, it positions its product as filling a special niche in the marketplace. The marketing environment is the set of conditions within which the company must start its search for opportunities and possible threats.

It consists of all the actors and forces that affect the company's ability to transact effectively with its target market. The company's micro-environment consists of the actors in the company's immediate environment that affect its ability to serve its markets; specifically, the company itself, suppliers, market intermediaries, customers, competitors, and publics. The company's macro-environment consists of six major forces: demographic, economic, natural, political, technological, and cultural.

Segmentation

Market segmentation is defined as "the process of taking the total, heterogeneous market for a product and dividing it into several submarkets or segments, each of which tends to be homogeneous in all significance.

The markets could be segmented in different ways. For instance, instead of mentioning a single market for 'shoes', it may be segmented into several sub-markets, e.g., shoes for executives, doctors college students etc. Geographical segmentation on the very similar lines

is also possible for certain products.

1. **Requirements formarketssegmentation** For market segmentation to become effective and result oriented, the following principles are to be observed:
 - a. Measurabilityofsegments,
 - b. Accessibilityof thesegments, and
 - c. Representabilityofthesegments.

The main purpose of market segmentation is to measure the changing behaviour patterns of consumers. It should also be remembered that variation in consumer behavior are both numerous and complex. Therefore, the segments should be capable of giving accurate measurements.

But this is often a difficult task and the segments are to be under constant review. The second condition, accessibility, is comparatively easier because of distribution, advertising media, salesmen, etc. Newspaper and magazines also offer some help in this direction. For examples, there are magazines

meant exclusively for the youth, for the professional people, etc. The third condition in the represent ability of each segment. The segments should be large and profitable enough to be considered as separate markets. Such segments must have individuality of their own. The segment is usually small in case of industrial markets and comparatively larger in respect of consumer products.

2. **Benefitsofsegmentation**

- The manufacturer is in a better position to find out and compare the marketing potentialitiesofhisproducts.Heisabletojudgeproductacceptanceortoassessthe resistance to his product.
- Therestultobtainedfrommarketsegmentationisanindicatoroadjusttheproduction, using man, materials and other resources in the most profitable manner. In other words, the organization
- canallocateandappropriateits effortsinamostusefulmanner.
- Change requiredmaybe studied and implemented without losing markets. Assuch, as product line could be diversified or even discontinued.
- It helps in determining the kinds of promotional devices that are more effective and also their results.
- Appropriate timingfortheintroductionofnew products,advertisingetc.,couldbe easily determined.

3. **Aggregation and segmentation** Market aggregation is just the opposite of segmentation. Aggregation implies the policy of lumping together into one mass all the markets for the products.

Production oriented firms usually adopt the method of aggregation instead of segmentation. Under this concept, management having only one product considers the entire buyers as one group.

Market aggregation enables an organization to maximize its economies of scale of production,pricing,physicaldistributionandpromotion.However,theapplicabilityof this concept in consumer oriented market is doubtful.

The'totalmarket'concept as envisagedbymarket aggregationmaynot be realistic inthe present-day marketing when consumers fall under heterogeneous groups.

4. **Basis for segmenting markets** As explained above, market segmentation consists in identifying a sufficient number of common buyer characteristics to permit sub division of the total demand for a product into economically viable segments. These segments fall between two extremes of total homogeneity and total heterogeneity. The various segments that are in vogue are as follows:

a. **Geographic segmentation:** Chronologically this kind of segmentation appeared first, for planning and administrative purposes. The marketer often find it convenient to sub-divide the country into areas in a systematic way. The great advantages of adopting this scheme are that standard regions are widely used by Government and it facilitates collection of statistics. Most of the national manufacturers split up their sales areas into sales territories either state-wise or district-wise.

b. **Demographic segmentation:** Under this method, the consumers are grouped into homogeneous groups in terms of demographic similarities such as age, sex, education, income level, etc.

This is considered to be more purposeful since the emphasis ultimately rests on customers. The variables are easy to recognize and measure than in the case of the first type, as persons of the same group may exhibit more or less similar characteristics.

For example, in the case of shoes, the needs and preferences of each group could be measured with maximum accuracy.

i. **Age groups:** Usually age groups are considered by manufacturers of certain special products. For example, toys. Even in the purchases made by parents, children exert a profound influence. The market segmented on the basis of the age groups is as follows:

1. children,
2. teenagers,
3. Adults,
4. grown-ups.

ii. **Family life-cycle:** This is yet another method falling under demographic segmentation. The concept of a family life cycle refers to the important stages in the life of an ordinary family. These stages are called 'decision making units' (Dumps). A widely accepted system distinguishes the following eight stages:

1. Young, single
2. Young, married, no children,
3. Young, married, youngest child under six,
4. Young, married, youngest child over six,
5. Older, married with children,
6. Older, married, no children under eighteen,
7. Older single,

8. Others. Although the distinction between the young and the old is not explicit the concept provides a useful basis for breaking down the total population into sub-group for a more detailed analysis. iii. **Sex:** Sex influences buying motives in consumer market, e.g. in the case of many products women demand special styles. Bicycle is an example.

This kind of segmentation is useful in many respects. The recent studies, however, show that traditional differences are being fast broken down and

this kind of segmentation doesn't hold much water. One reason for this is that women are going in for jobs.

This is a blessing in disguise as a number of new products are now being demanded, e.g. frozen food, household appliances, etc. Successful attempts to remove barriers of discrimination against women have generated many market opportunities. Interestingly enough, however, it has not been so easy to get males to accept products traditionally considered feminine.

A decade ago driving motor vehicles by women was seldom seen but today it has become a common sight. The distinction in dress traditionally maintained by girls and boys has also been considerably reduced. These changes have tremendous marketing implications.

- c. **Socio-psychological segmentation:** The segmentation here is done on the basis of social class, viz., working class, middle income groups, etc. Since marketing potentially is intimately connected with the "ability to buy", this segmentation is meaningful in deciding buying patterns of a particular class.
- d. **Product segmentation:** When the segmentation of markets is done on the basis of product characteristics that are capable of satisfying certain special needs of customers, such a method is known as product segmentation. The products, on this basis, are classified into:
- i. Prestige products, e.g. automobiles, clothing.
 - ii. Maturity products, e.g. cigarettes, blades.
 - iii. Status products, e.g. most luxuries.
 - iv. Anxiety products, e.g. medicines, soaps.
 - v. Functional products, e.g. fruits, vegetables. The argument in favor of this type of product segmentation is that it is directed towards differences among the products which comprise markets. Where the products involved show great differences, this method is called a rational approach.
- e. **Benefit segmentation:** Russell Hilly introduced the concept of benefit segmentation. Under this method, the buyers form the basis of segmentation but not on the demographic principles mentioned above. Here consumers are interviewed to learn the importance of different benefits they may be expecting from a product. These benefits or utilities may be classified into generic or primary utilities and secondary or evolved utilities. The following table would explain this aspect.
- But choosing the benefit as emphasized is not any easy job, for the various utilities may shift from time to time.

Product category	Generic or primary utilities	Secondary or evolved utilities
Tooth-paste	Cleaning	Good taste, breath freshening, brightness
Shampoo	Cleaning	Shiny hair, thickening hair
Aspirin	Pain control	Speed of action, taste
Automobiles type	Convenience	Economy seeking, status, quality, i.e., speed

- f. **Volume segmentation:** Another way of segmenting the market is on the basis of volume of purchases. Under this method the buyers are purchasers, and single unit purchasers. This analysis is also capable of showing the buying behavior of different groups.
- g. **Marketing-factor segmentation:** The responsiveness of buyers to different marketing activities is the basis for these types of segmentation. The price, quality, advertising, promotional devices, etc., are some of the activities involved under this method.

This is explained by R.S. Frank as follows: "If a manufacturer knew that one identifiable group of his customers was more responsive to changes in advertising expenditure than others, he might find it advantageous to increase the amount of advertising aimed at them.

The same sort of tailoring would also be appropriate if it was found that customers reacted differently to changes in pricing, packaging, product, quality etc. It is pertinent here to ask how these considerations influence marketing.

The answer is simple as the present day marketing is consumer-oriented and consumers' psychology, their social and economic characteristics form the corner stone of marketing decisions. It is this recognition accorded to consumers that has given rise to the concept of market segmentation.

5. **Markets on the basis of segmentation** It is now certain that any market could be segmented to a considerable extent because buyers' characteristics are never similar. This, however, does not mean that manufacturers may always try to segment their market. On the basis of the intensity of segmentation, marketing strategies to be adopted may be classified into:

- a. **Undifferentiated marketing:** When the economies of organization do not permit the division of market into segments, they conceive of the total market concept. In the case of fully standardized products and where substitutes are not available, differentiation need not be undertaken. Under such circumstances firms may adopt mass advertising and other mass methods in marketing, e.g., Coca Cola.
- b. **Differentiated marketing:** A firm may decide to operate in several or all segments of the market and devise separate product-marketing programmes. This also helps in developing intimacy between the producer and the consumer. In recent years most firms have preferred a strategy of differentiated marketing, mainly because

consumer demand is quite diversified. For example, cigarettes are now manufactured in a variety of lengths and filter types.

This provides the customer an opportunity to select his or her choice from filtered, unfiltered, long or short cigarettes. Each kind offers a basis for segmentation also.

Though the differentiated marketing is sales-oriented, it should also be borne in mind that it is a costly affair for the organization.

- c. **Concentrated marketing:** Both the concepts explained above imply the approach of total market either with segmentation or without it. Yet another option is to have concentrated efforts in a few markets capable of affording opportunities.

Put in another way, 'instead of spreading itself thin in many parts of the market, it concentrates its forces to gain a good market position in a few areas. Then new products are introduced and test marketing is conducted, and this method is adopted.

For a consumer product 'Boost' produced by the manufacturers of Hotlinks, this method was adopted. The principle involved here is 'specialization' in markets which have real potential. Another notable feature of this method is the advantage of one segment is never offset by the other. But in the case of the first two types, good and poor segments are averaged.

TARGETING

Market segmentation reveals the market-segment opportunities facing the firm. The firm now has to evaluate the various segments and decide how many and which ones to serve.

1. **Evaluating the market segments** In evaluation of different market segments, the firm must look at three factors, namely segment size and growth, segment structural attractiveness and company objectives and resources.
 - a. **Segment size and growth:** The first question that a company should ask is whether a potential segment has the right size and growth characteristics. Large companies refer segments with large sales volumes and overlook small segments. Small companies in turn avoid large segments because they would require too many resources. Segment growth is a desirable characteristic since companies generally want growing sales and profits.
 - b. **Segment structural attractiveness:** A segment might have desirable size and growth and still not be attractive from a profitability point of view. The five threats that a company might face are:
 - i. Threat from industry competitors: A segment is unattractive if it already contains numerous and aggressive competitors. This condition may lead to frequent price wars.
 - ii. Threats from potential entrants: i.e. from new competitors who, if enter the segment at a later stage, bring in new capacity, substantial resources and would soon steal a part of the market share.

- iii. **Threat of substitute products:** A segment is unattractive if there exists too many substitutive products because it would result in brand switching, price wars, low profits etc.
 - iv. **Threat of growing bargaining power of buyers:** A segment is unattractive if the buyers possess strong bargaining power. Buyers will try to force price down, demand more quality or services, all at the expense of the seller's profitability.
 - v. **Threat of growing bargaining power of suppliers:** A segment is unattractive if the company's suppliers of raw materials, equipment, finance etc., are able to raise prices or reduce the quality or quantity of ordered goods.
- c. **Company objectives and resources:** Even if a segment has positive size and growth and is structurally attractive, the company needs to consider its own objectives and resources in relation to that segment. Some attractive segments could be dismissed because they do not match with the company's long-run objectives. Even if the segment fits the company's objectives, the company has to consider whether it possesses the requisite skills and resources to succeed in that segment. The segment should be dismissed if the company lacks one or more necessary competences needed to develop superior competitive advantages.

2. **Selecting the market segments** As a result of evaluating different segments, the company hopes to find one or more market segments worth entering. The company must decide which and how many segments to serve. This is the problem of target market selection. A target market consists of a set of buyers sharing common needs or characteristics that the company decides to serve. The company can consider five patterns of target market selection.

- a. **Single segment concentration:** In the simplest case, the company selects a single segment. This company may have limited funds and may want to operate only in one segment, it might be a segment with no competitor, and it might be a segment that is logical launching pad for further segment expansion.
- b. **Selective specialization:** Here a firm selects a number of segments, each of which is attractive and matches the firm's objectives and resources. This strategy of 'multi-segment coverage' has the advantage over 'single-segment coverage' in terms of diversifying the firm's risk. i.e. even if one segment becomes unattractive, the firm can continue to earn money in other segments.
- c. **Product specialization:** Here the firm concentrates on marketing a certain product that it sells to several segments. Through this strategy, the firm builds a strong reputation in the specific product area.
- d. **Market specialization:** Here the firm concentrates on serving many needs of a particular customer group. The firm gains a strong reputation for specializing in serving this customer group and becomes a channel agent for all new products that this customer group could feasibly use.
- e. **Full market coverage:** Here the firm attempts to serve all customer groups with all the products that they might need. Only large firms can undertake a full market coverage strategy. e.g. Philips (Electronics), HLL (Consumer nondurables). Large firms going in for whole market can do so in two broad ways— through undifferentiated marketing or differentiated marketing.

Positioning

Suppose a company has researched and selected its target market. If it is the only company serving the target market, it will have no problem in selling the product at a price that will yield reasonable profit. However, if several firms pursue this target market and their products are undifferentiated, most buyers will buy from the lowest priced brand. Either, all the firms will have to lower their price or the only alternative is to differentiate its product or service from that of the competitors, thereby securing a competitive advantage and better price and profit.

The company must carefully select the ways in which it will distinguish itself from competitors. Suppose a scooter manufacturer, say Bajaj, gets worried that scooter buyers see most scooter brands as similar and, therefore, choose their brand mainly on the basis of price. Realizing this, Bajaj may decide to differentiate their scooters physical characteristics.

"Differentiation is the act of designing a set of meaningful differences to distinguish the company's offer from competitors' offers. Maybe Bajaj claims its scooter to be different from others because of its highest fuel efficiency and economy, LML claims maximum durability and added physical features, whereas Vijay Super may have claimed highest mileage.

Thus, all scooters appeal differently to different buyers. If it wishes, any scooter manufacturer can show this comparison chart to potential buyers. Not all buyers will notice or be interested in all the ways one brand differs from another.

Such firm will want to promote those few differences that will appeal most strongly to its target market. Positioning is the act of designing the company's offer so that it occupies a distinct and valued place in the target customer's minds. Positioning calls for the company to decide how many differences and which differences to promote to the target customers.

How many differences to promote: Many marketers advocate aggressively promoting only one benefit to the target market. Rosser Reeves, e.g. said a company should develop a unique selling proposition (USP) for each brand and stick to it.

Thus, Godrej refrigerators claim, automatic defrost, while Rin claim to have dirt-blasters. Each brand should pick an attribute and claim itself to be "number one" on it. What are some of the "number one" positions to promote? The major ones are "best quality", "best service", "best value", "most advanced technology" etc.

If a company hammers at any one of these positioning points and delivers it properly, it will probably be best known and recalled for this strength. Besides single benefit positioning, the company can try for double benefit

positioning- e.g. Forhans toothpaste claims that it cleans teeth and protects the enamel. There are even cases of successful triple benefit positioning e.g. Videocon Washing machines claims that the machine "washes, rinses and even dries the clothes". Many people want all three benefits, and the challenge is to convince them that the brand delivers all three.

What differences to promote: A company should promote its major strengths provided that the target market values these strengths. The company should also recognize that differentiation is a continuous process. It would seem that the company should go after cost or service to improve its market appeal relative to competitors. However, many other considerations arise.

1. How important are improvements in each of these attributes to the target customers?
2. Can the company afford to make the improvements, and how fast can it complete them?
3. Would the competitors also be able to improve service if the company started to do so, and in that case, how would the company react?

This type of reasoning can help the company choose or add genuine competitive advantages.

Communicating the Company's positioning: The Company must not only develop a clear positioning strategy, it must also communicate it effectively. Suppose a company chooses the "best in quality" positioning strategy. It must then make sure that it can communicate this claim convincingly.

Quality is communicated by choosing those physical signs and cuts that people normally use to judge quality. Quality is often communicated through other marketing elements. A high price usually signals a premium-quality product to buyers. The product's quality image is also affected by the packaging, distribution, advertising and promotion.

The manufacturer's reputation also contributes to the perception of quality. To make a quality claim credible, the surest way is to offer "satisfaction or your money back". Smart companies try to communicate their quality to buyers and guarantee that this quality will be delivered or their money will be refunded.

Marketing environment

A company's marketing environment consists of the factors and forces that affect the company's ability to develop and maintain successful transactions and relationships with its target customers. Every business enterprise is confronted with a set of internal factors and a set of external factors.

The internal factors are generally regarded as controllable factors because the company has a fair amount of control over these factors, it can alter or modify such factors as its personnel, physical facilities, marketing-mix etc. to suit the environment. The external factors are by and large, beyond the control of a company.

The external environmental factors such as the economic factors, sociocultural factors, government and legal factors, demographic factors, geophysical factors etc. As the environmental factors are beyond the control of a firm, its success will depend to a very large extent on its adaptability to the environment, i.e. its ability to properly design and adjust internal variables to take advantages of the opportunities and to combat the threats in the environment.

1. **The micro environment** The micro environment consists of the actors in the company's immediate environment that affects the ability of the marketers to serve their customers. These include the suppliers, marketing intermediaries, competitors, customers and publics.

- a. **Suppliers:** Suppliers are those who supply the inputs like raw materials and components etc. to the company. Uncertainty regarding the supply or other supply constraints often compels companies to maintain high inventories causing cost increases.

It has been pointed out that factories in India maintain indigenous stocks of 3-4 months and imported stocks of 9 months as against on average of a few hours to two weeks in Japan. It is very risky to depend on a single supplier

because a strike, lock out or any other production problem with that supplier may seriously affect the company. Hence, multiple sources of supply often help reduce such risks.

- b. **Customers:** The major task of a business is to create and sustain customers. A business exists only because of its customers and hence monitoring the customer sensitivity is a prerequisite for the business to succeed.

A company may have different categories of consumers like individuals, households, industries, commercial establishments, governmental and other institutions etc. Depending on a single customer is often too risky because it may place the company in a poor bargaining position. Thus, the choice of the customer segments should be made by considering a number of factors like relative profitability, dependability, growth prospects, demand stability, degree of competition etc.

- c. **Competitors:** A firm's competitors include not only the other firms which market the same or similar products but also all those who compete for the discretionary income of the consumers. For example, the competition for a company making televisions may come not only from other TV manufacturers but also from refrigerators, stereo sets, two-wheelers, etc. This competition among these products may be described as desire competition as the primary task here is to influence the basic desire of the consumer.

If the consumer decides to spend his disposable income on recreation, he will still be confronted with a number of alternatives to choose from like T.V., stereo, radio, C.D. player etc. the competition among such alternatives which satisfy a particular category of desire is called generic competition. If the consumer decides to go in for a T.V. the next question is which form of T.V. - black and white, color, with remote or without etc. this is called 'product form competition'. Finally, the consumer encounters brand competition, i.e. competition between different brands like Philips, B.P.L., Onida, Videocon, Coldstar etc. An implication of these different brands is that a marketer should strive to create primary and selective demand for his products.

- d. **Marketing intermediaries:** The immediate environment of a company may consist of a number of marketing intermediaries which are "firms that aid the company in promoting, selling and distributing its goods to final buyers.

The marketing intermediaries include middlemen such as agents and merchants, who help the company find customers or close sales with them; physical distribution firms which assist the company in stocking and moving goods from their origin to their destination such as warehouses and transportation firms;

marketing service agencies which assist the company in targeting and promoting its products to the right markets such as advertising agencies; consulting firms, and finally financial intermediaries which finance marketing activities and insure business risks.

Marketing intermediaries are vital link between the company and final consumers. A dislocation or disturbance of this link, or a wrong choice of the link, may cost the company very heavily.

- e. **Public:** A company may encounter certain publics in its environment. "A public is any group that has actual or potential interest in or impact on an organisation's ability to achieve its interests". Media, citizens, action publics and local publics are some examples. Some companies are seriously affected by such publics, e.g. one of the leading daily that was allegedly bent on bringing down the share price of the company by tarnishing its image.

Many companies are also affected by local publics. Environmental pollution is an issue often taken up by a number of local publics. Action by local publics on this issue has caused some companies to suspend operations and/or take pollution control measures. However, it is wrong to think that all publics are threats to business.

Some publics are opportunity for business. Some businessmen e.g. regard consumerism as an opportunity for their business. The media public may be used to disseminate useful information. Similarly, fruitful symbiotic cooperation between a company and the local publics may be established for the benefit of the company and the local community.

2. **Macroenvironment** A company and the forces in its micro environment operate in larger macro environment of forces that shape opportunities and pose threats to the company. The macro forces are, generally, more uncontrollable than the micro forces. The macro environmental forces are given below:

- a. **Economic environment:** Economic conditions, economic policies and the economic system are the important external factors that constitute the economic environment of a business.

The economic conditions of a country e.g., the nature of the economy, the stage of development of the economy, economic resources, the level of income, the distribution of income and assets etc.

are among the very important determinants of business strategies. In a developing economy, the low income may be the reason for the very low demand for a product. In countries where investment and income are steadily and rapidly rising, business prospects are generally bright, and further investments are encouraged.

The economic policy of the government, needless to say, has a very strong impact on business. Some types of businesses are favorably affected by government policy, some adversely affected, while it is neutral in respect of others, e.g. in case of India, the priority sector and the small-scale sector get a number of incentives and positive support from the government, whereas those industries which are regarded as inessential may find the odds against them.

The monetary and fiscal policies by way of incentives and disincentives they offer and by their neutrality, also affect the business in different ways. The scope of private business depends, to a large extent, on the economic system. At one end, there are the free market economies, or capitalist economies, and at the other are the centrally planned economies or communist economies. In between these two extremes are the mixed economies.

A completely free economy is an abstract rather than a real system because some amount of government regulations always exist. Countries like the United States, Japan, Canada, Australia etc. are regarded as free market economies. The communist countries have, by and large, a centrally planned economic system.

The State, under this system, owns all the means of production, determines the goals of production and controls the economy. China, Hungary, Poland etc. had centrally planned economies. However, recently, several of these countries have discarded communist system and have moved towards the market economy.

In a mixed economy, both public and private sectors co-exist, as in India. The extent of state participation varies widely across different mixed economies. However, in many mixed economies, the strategic and other nationally very important industries are fully owned or dominated by the state. The economic system, thus, is a very important determinant of the scope of business.

- b. **Political and Government environment:** Political and government environment has a closer relationship with the economic system and economic policy. In most countries, there are a number of laws that regulate the conduct of the business.

These laws cover such matters as standards of product, packaging, promotion etc. In many countries, with a view to protecting consumer interests, regulations have become stronger. Regulations to protect the purity of the environment and preserve the ecological balance have assumed great importance in many countries.

In most nations, promotional activities are subject to various types of controls. Media advertising is not permitted in Libya. In India too, till recently advertisements of liquor, cigarettes, gold, silver etc. were prohibited. There is a host of statutory control on business in India.

MRTI commission, industrial licensing, FEMA regulations etc. kept a strict check on the expansion of private enterprises till recently. Recent changes in the statutes and policies have had a profound and positive impact on business. Thus, marketing policies are definitely influenced by government policies and controls throughout the world.

- c. **Socio-cultural environment:** The socio-cultural environment includes the customs, traditions, taboos, tastes, preferences etc. of the members of the society, which cannot be ignored at any cost by any business unit. For a business to be successful, its strategy should be the one that is appropriate in the socio-cultural environment. The marketing-mix will have to be so designed as to suit the environmental characteristics of the market. Nestle, a Swiss multinational company, today brews more than forty varieties of instant coffee to satisfy different national tastes.

Even when people of different cultures use the same basic product, the mode of consumption, conditions of use, purpose of use or the perceptions of the product attributes may vary so much so that the product attributes, method of presentation, or promotion etc.

may have to be varied to suit the characteristics of different markets. The differences in language sometimes pose a serious challenge and even necessitate a change in the brand name.

The values and beliefs associated with color vary significantly across different cultures. e.g. white is a color which indicates death and mourning in countries like China, Korea and India but in many countries it is a color expressing happiness and often used as a wedding dress color.

While dealing with the social environment, it is important to remember that the social environment of business also encompasses its social responsibility, alertness or vigilance of the consumers and the society's interests and well-being at large.

- d. **Demographic environment:** Demographic factors like the size, growth rate, age composition, sex composition, family size, economic stratification of the population, educational levels, language, caste, religion etc. are all factors relevant to business.

All these demographic variables affect the demand for goods and services. Markets with growing population and income are growth markets. But the decline in birth rates in countries like United States, etc. has affected the demand for baby products.

Johnson and Johnson had to overcome this problem by repositioning their products like baby shampoo and baby soaps, and promoting them to the adult segment particularly females.

A rapidly increasing population indicates a growing demand for many products. High population growth rates also indicate an enormous increase in labor supply. Cheap labor and a growing market have encouraged many multinational corporations to invest in developing countries like India.

- e. **Natural environment:** Geographical and ecological factors such as natural resources endowments, weather and climate conditions, topographical factors, location aspects in the global context, port facilities etc.

are all relevant to business. Geographical and ecological factors also influence the location of certain industries, e.g. industries with high material intensity tend to be located near the raw material sources. Climate and weather conditions affect the location of certain industries like the cotton textile industry.

Topographical factors may affect the demand pattern, e.g. in hilly areas with difficult terrain, jeeps may be in greater demand than cars. Ecological factors have recently assumed greater importance. The depletion of natural resources, environmental pollution and the disturbance of the ecological balance has caused great concern.

Government policies aimed at the preservation of environmental purity and ecological balance, conservation of non-replenishable resources etc. have resulted in additional responsibilities and problems for business, and some of these have the effect of increasing the cost of production and marketing.

- f. **Physical facilities and technological environment:** Business prospects depend on the availability of certain physical facilities. The sale of television sets e.g. is limited by the extent of coverage of telecasting. Similarly, the demand for refrigerators and other electrical appliances is affected by the extent of electrification and the reliability of power supply. Technological factors sometimes pose problems.

A firm which is unable to cope with the technological changes may not survive.

Further, the different technological environment of different markets or countries may call for product modifications, e.g. many appliances and instruments in the U.S.A. are designed for 110 volts but this needs to be converted into 240 volts in countries which have that power system.

- g. **International environment:** The international environment is very important from the point of view of certain categories of business. It is particularly important for industries directly depending on exports or imports. E.g. a recession in foreign markets or the adoption of protectionist policies may help the export-oriented industries.

Similarly, liberalization of imports may help some industries which use imported items, but may adversely affect import-competing industries. Similarly, international bodies like WTO, IMF, WHO, ILO etc. have had a major impact on influencing the policies and trade of many countries, especially India.

CONSUMER STUDY

Introduction

Behavior is a mirror in which everyone displays his own image. The term consumer behavior can be defined as the behavior that consumers display in searching for, purchasing, using, evaluating, and disposing of products and services that they expect will satisfy their needs.

The study of consumer behavior is the study of how individuals make decision to spend their available resources (money, time, and effort) on consumption-related items. It includes the study of what they buy, why they buy it, how they buy it, when they buy it, where they buy it, and how often they buy it.

The term Consumer is often used to describe two different kinds of consuming entities: the personal consumer and organizational consumer. The personal consumer buys goods and services for his or her own use (e.g. shaving cream or lipstick), for the use of the household, or as a gift for a friend. In all of these contexts, the goods are bought for final use by individuals, who are referred to as 'end users' or 'ultimate consumers'.

The second category of consumer, the organizational consumer, encompasses profit and nonprofit making businesses, government agencies, and institutions, all of which must buy products, equipments, and services in order to run their organizations. Manufacturing companies must buy the raw materials and other components to manufacture and sell their own products; service

companies must buy the equipments necessary to render the services they sell; government agencies must buy the office products needed to operate agencies; and institutions must buy the materials they need to maintain themselves and their population. The person who purchases a product is not always the user, or the only user, of the product in question. Nor is the purchaser necessarily the person who makes the product decision.

A mother may buy toys for her children (who are the users); she may buy food for dinner (and be one of the users); she may buy a handbag (and be the only user). She may buy a magazine that one of her teenagers requested, or rent a video that her husband requested, or she and her husband together may buy a car that they both selected. Clearly, buyers are not always the users or the only users, of the products they buy, nor are they necessarily the persons who make the product selection decisions.

Marketers must decide at whom to direct their marketing efforts: the buyer or the user. They must identify the person who is most likely to influence the purchase decision. Some marketers believe that the buyer of the product is the best prospect, others believe it is the users of the product, which still others play it safe by directing all their marketing efforts to both buyers and users.

The study of consumer behavior holds great interest for us as consumers, as students, and as marketers. As consumers, we benefit from insights into our own consumption-related decisions: what we buy, why we buy, and how we buy. The study of consumer behavior makes us aware of the subtle influences that persuade us to make the product or service choices we do.

As students of human behavior, it is important for us to understand the internal and external influences that impel individuals to act in certain consumption-related ways. Consumer behavior is simply a subset of the larger field of human behavior. As marketers or future marketers, it is

important for us to recognize why and how individuals make their consumption-related decisions so that we can make better strategic marketing decisions.

Without doubt, marketers who understand consumer behavior have a great competitive advantage in the market place. There are a number of reasons why the study of consumer behavior developed as a separate marketing discipline. Marketing scientists had long noted that consumers did not always act or react as economic theory would suggest. The size of the consumer market was vast and constantly expanding. Consumer preferences were changing and becoming highly diversified.

Even in industrial markets, where needs for goods and services were always more homogeneous than in consumer markets, buyers were exhibiting diversified preferences and less predictable purchase behavior.

The technological explosion that started after World War II resulted in the rapid introduction of new products at an ever-increasing rate. Many of these products—some experts estimate over 80 per cent—proved to be marketing disasters.

To counter this problem marketers have made a determined effort to learn more about consumers (their needs, preferences, changing life styles) to guide the development of new products to fulfill unsatisfied needs.

In addition to the fast pace of new product introduction, other factors that contributed to the development of consumer behavior as a marketing discipline include shorter product lifecycles, environmental concerns, increased interest in consumer protection, the growth of service marketing, the growth of international markets, and the development of computers and sophisticated methods of statistical analysis.

Consumer behavior is interdisciplinary; that is, it is based on concepts and theories about people that have been developed by social scientists in such diverse disciplines as psychology, sociology, social psychology, cultural anthropology, and economics.

Consumer needs and motivation Every individual has needs; some are innate, others are acquired. Innate needs are physiological (i.e., biogenic); they include the needs for food, for water, for air, for clothing, for shelter, and for sex. Because they are needed to sustain biological life, the biogenic needs are considered primary needs or motives.

Acquired needs are needs that we learn in response to our culture or environment. These may include needs for esteem, for prestige, for affection, for power, and for learning. Because acquired needs are generally psychological (i.e., psychogenic), they are considered secondary needs or motives. They result from the individual's subjective psychological state and from relationships with others.

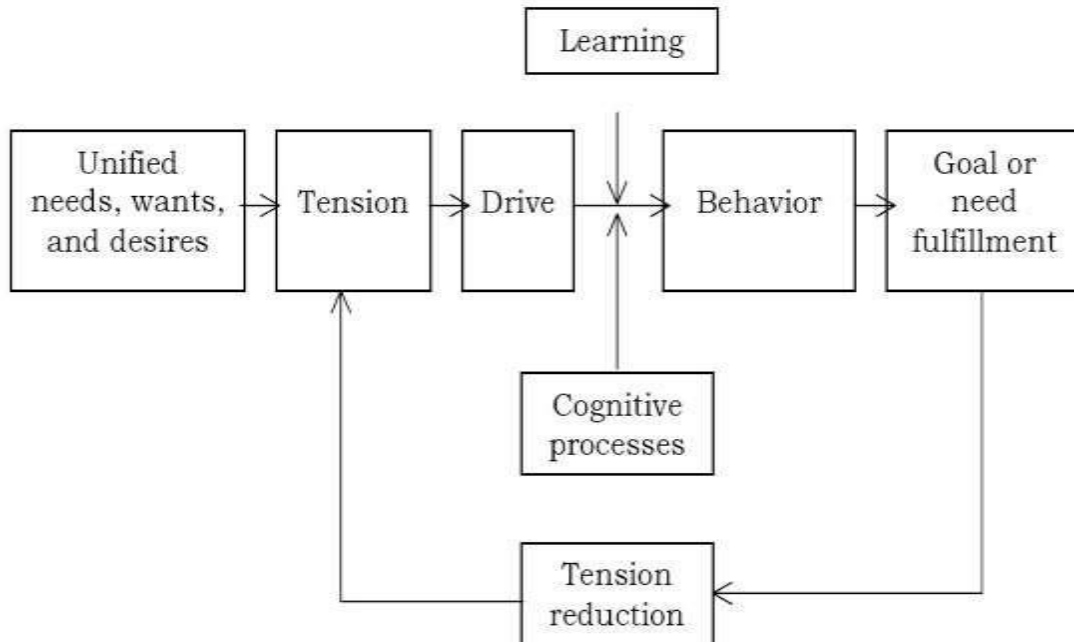
For example, all individuals need shelter from the elements; thus, finding a place to live fulfills an important primary need for a newly transferred executive. However, the kind of house she buys may be the result of secondary needs. She may seek a house in which she can entertain large groups of people (and fulfill her social needs); she may also want to buy a house in an exclusive community in order to impress her friends and family (and fulfill her ego needs). The house an individual ultimately purchases thus may serve to fulfill both primary and secondary needs.

Motivation can be described as the driving force within individuals that impels them to action. This driving force is produced by a state of tension, which exists as the result of an unfulfilled need.

Individuals strive— both consciously and subconsciously— to reduce this tension through behavior that they anticipate will fulfill their needs and thus relieve them of the stress they feel.

The specific goals they select and the patterns of action they undertake to achieve their goals are the result of individual thinking and learning. Figure 3.1 presents a model of the motivational process. It portrays motivation as a state of need-induced tension, which exerts "push" on the individual to engage in behavior that he or she expects will gratify needs and thus reduce tension.

The specific course of action that consumers pursue and their specific goals are selected on the basis of their thinking processes (i.e., cognition) and previous learning. For that reason, marketers who understand motivational theory attempt to influence the consumer's cognitive processes.



Model of the motivational process

Positive and negative motivation—Motivation can be positive or negative in direction. We may feel a driving force toward some object or condition, or a driving force away from some object or condition.

For example, a person may be impelled toward a restaurant to fulfill a hunger need and away from motorcycle transportation to fulfill a safety need. Some psychologists refer to positive drives as needs, wants, or Unified needs, wants, and desires. Tension, Drive, Behavior, Goal or need fulfillment, Learning, Cognitive processes, and Tension reduction. Negative drives as fears or aversions.

However, though negative and positive motivational forces seem to differ dramatically in terms of physical (and sometimes emotional) activity, they are basically similar in that both serve to initiate and sustain human behavior. For this reason, researchers often refer to both kinds of drives or motives as needs, wants, and desires.

Rational versus emotional motives— Some consumer behaviorists distinguish between so-called rational motives and emotional (or nonrational) motives. They use the term rationality in the traditional economic sense, which assumes that consumers behave rationally when they carefully consider all alternatives and choose those that give them the greatest utility (i.e., satisfaction). In a marketing context, the term rationality implies that consumers select goals based on totally objective

criteria, such as size, weight, price, or miles per gallon. Emotional motives simply the selection of goals according to personal or subjective criteria (e.g., the desire for individuality, pride, fear, affection, status). The assumption underlying this distinction is that subjective or emotional criteria do not maximize utility or satisfaction. However, it is reasonable to assume that consumers always attempt to select alternatives that, in their view, serve to maximize satisfaction. Obviously,

the assessment of satisfaction is a very personal process, based on the individual's own need structure as well as on past behavioral, and social or learned experiences. What may appear irrational to an outside observer may be perfectly rational in the context of the consumer's own psychological field.

For example, a product purchased to enhance self image (such as a fragrance) is a perfectly rational form of consumer behavior.

Consumer Perception

Perception can be described as "how we see the world around us". Two individuals may be subject to the same stimuli under apparently the same conditions, but how they recognize them, select them, organize them, and interpret them is a highly individual process based on each person's own needs, values, expectations, and the like. Perception is defined as the process by which an individual selects,

organizes, and interprets stimuli into a meaningful and coherent picture of the world. A stimulus is any unit of input to any of the senses. Examples of stimuli (i.e., sensory inputs) include products, packages, brand names, advertisements, and commercials. Sensory receptors are the human organs (the eyes, ears, mouth, and skin) that receive sensory inputs.

These sensory functions are to see, hear, smell, taste, and feel. All of these functions are called into play—either singly or in combination—in the evaluation and use of most consumer products. The study of perception is largely the study of what we subconsciously add to or subtract from raw sensory inputs to produce a private picture of the world.

- a. **Sensation—** Sensation is the immediate and direct response of the sensory organs to simple stimuli (an advertisement, a package, a brand name). Human sensitivity refers to the experience of sensation. Sensitivity to stimuli varies with the quality of an individual's sensory receptors (e.g., eyesight or hearing) and the amount of intensity of the stimuli to which he or she is exposed.

For example, a blind person may have a more highly developed sense of hearing than the average sighted person and may be able to hear sounds that the average person cannot. Sensation itself depends on energy change or differentiation of input.

A perfectly bland or unchanging environment—regardless of the strength of the sensory input—provides little or no sensation at all. Thus, a person who lives on a busy street in

midtown Manhattan would probably receive little or no sensation from the inputs of such noisy stimuli as horns honking, tires screeching, and fire engines clanging, since such sounds are so common in New York City.

One honking horn more or less would never be noticed. In situations where there is a great deal of sensory input, the senses do not detect small intensities or differences in input. As sensory input decreases, however, our ability to detect changes in input or intensity increases, to the point that we attain maximum sensitivity under conditions of minimal stimulation.

This accounts for the statement, "It was so quiet I could hear a pin drop". It also accounts for the increased attention given to a commercial that appears alone during a program break, or to a black-and-white advertisement in a magazine full of four-color advertisements.

This ability of the human organism to accommodate itself to varying levels of sensitivity as external conditions vary not only provides more sensitivity when it is needed, but also serves to protect us from damaging, disruptive, or irrelevant bombardment when the input level is high.

- b. **Perceptual Selection** Consumers subconsciously exercise a great deal of selectivity as to which aspects of the environment—which stimuli—they perceive. An individual may look at some things, ignore others, and turn away from still others. In total, people actually receive- or perceive-only a small fraction of the stimuli to which they are exposed. Consider, for example, a woman in a super-market.

She is exposed to literally thousands of products of different colors, sizes, and shapes; to perhaps a hundred people (looking, walking, searching, talking); to smells (from fruit, from meat, from disinfectant, from people); to sounds within the store (cash registers ringing, shopping carts rolling, air conditioners humming, and clerk sweeping, stockings shelves); and to sounds from outside the store (planes passing, cars honking, tires screeching, children shouting, car doors slamming).

Yet she manages on a regular basis to visit her local supermarket, select the items she needs, pay for them, and leave, all within a relatively brief time, without losing her sanity or her personal orientation to the world around her. This is because she exercises selectivity in perception.

Which stimuli get selected depends on two major factors in addition to the nature of the stimuli itself: the consumer's previous experience as it affects her expectations (what she is prepared, or "set", to see) and her motives at the time (her needs, desires, interests, and so on).

Each of these factors can serve to increase or decrease the probability that the stimulus will be perceived, and each can affect the consumer's selective exposure to and selective awareness of the stimulus itself.

- c. **Nature of the Stimulus**— Marketing stimuli include an enormous number of variables that affect the consumer's perception, such as the nature of the product, its physical attributes, the package design, the brand name, the advertisements and commercials (including copy claims, choice and sex of model, positioning of model, size of ad, and

typography), the position of the ad or time of the commercial, and the editorial environment.

- d. **Expectations**—People usually see what they expect to see, and what they expect to see is usually based on familiarity, previous experience, or “preconditioned” set”. In a marketing context, people tend to perceive products and product attributes according to their own expectations. A man who has been told by his friend that a new brand of Scotch has a bitter taste will probably perceive the taste to be bitter; a teenager who attends a horror movie that has been billed as terrifying will probably find it so.
- e. **Motives**— People tend to perceive things they need or want; the stronger the need, the greater the tendency to ignore unrelated stimuli in the environment. A businessman concerned with fitness and health is more likely to notice and to read carefully an ad for a health club than one who is without such concerns. In general, there is a heightened awareness of stimuli that are relevant to one’s needs and interests, and a decreased awareness of stimuli that are irrelevant to those needs.
- f. **Related Concepts**—As the preceding discussion illustrates, the consumer’s “selection” of stimuli from the environment is based on the interaction of expectations and motives with the stimulus itself. These factors give rise to a number of important concepts concerning perception.
- Selective Exposure**—Consumers actively seek out messages they find pleasant or with which they are sympathetic, and actively avoid painful or threatening ones. Thus, heavy smokers avoid articles that link cigarette smoking to cancer and note (and quote) the relatively few that deny the relationship. Consumers also selectively expose themselves to advertisements that reassure them of the wisdom of their purchase decisions.
- g. **Selective Attention**—Consumers have a heightened awareness of the stimuli that meet their needs or interests and a lesser awareness of stimuli irrelevant to their needs. Thus, they are likely to note ads for products that meet their needs or for stores with which they are familiar and disregard those in which they have no interest. People also vary in terms of the kind of information in which they are interested and the form of message and type of medium they prefer. Some people are more interested in price, some in appearance, and some in social acceptability. Some people like complex, sophisticated messages; others like simple graphics. Consumers therefore exercise a great deal of selectivity in terms of the attention they give to commercial stimuli.
- h. **Perceptual Defense**—Consumers subconsciously screen out stimuli that are important for them not to see, even though exposure has already taken place. Thus, threatening or otherwise damaging stimuli are less likely to be perceived than are neutral stimuli at the same level of exposure. Furthermore, individuals may distort information that is not consistent with their needs, values, and beliefs.
- i. **Perceptual Blocking**— Consumers protect themselves from being bombarded with stimuli by simply “tuning out”— blocking such stimuli from conscious awareness. Research shows that enormous amounts of advertising are screened out by consumers; this may be more common for television than for print.
- To explain why television advertising recall scores are falling, various hypotheses have been offered, such as the greater amount of time allotted for commercials, the use of shorter commercials (and thus more advertising messages within the same period of time), the number of commercials that are strung together back to back, the increased number of advertisers, and the greater number of products being advertised.

- j. **Perceptual Organization** People do not experience the numerous stimuli they select from the environment as separate and discrete sensations; rather, they tend to organize them into groups and perceive them as unified wholes.
- Thus, the perceived characteristics of even the simplest stimulus are reviewed as a function of the whole to which the stimulus appears to belong. This method of organization simplifies life considerably for the individual. The specific principles underlying perceptual organization are often referred to by the name given the school of psychology that first developed and stressed it- Gestalt psychology. (Gestalt in German means "Pattern" or "Configuration"). Three of the most basic principles of perceptual organization center on figure and ground relationships, grouping, and closure.
- k. **Figure and Ground**—Stimuli must contrast with their environment in order to be noticed. A sound must be louder or softer, a color brighter or paler. The simplest visual illustration consists of a figure on a ground (i.e., background). The figure is usually perceived clearly because, in contrast to its ground, it appears to be well defined, solid, and in the forefront.
- l. **Grouping**— Individuals tend to group stimuli automatically so that they form a unified picture or impression. The perception of stimuli as groups or "chunks" of information, rather than as discrete bits of information, facilitates their memory and recall.
- Grouping can be used advantageously by marketers to imply certain desired meanings in connection with their products. For example, an advertisement for tea may show a young man and woman sipping tea in a beautifully appointed room before a blazing hearth. The grouping of stimuli by proximity leads the consumer to associate the drinking of tea with romance, fine living, and winter warmth. Most of us can remember and repeat our social security numbers because we automatically group them into three chunks rather than nine separate numbers.
- When the telephone company introduced the idea of all-digit telephone numbers, consumers objected strenuously on the grounds that they would not be able to recall or repeat so many numbers.
- However, because we automatically group telephone numbers into two chunks (or three, with the area code), the problems that were anticipated never occurred.
- m. **Closure**—Individuals have a need for closure. They express this need by organizing their perceptions so that they form a complete picture. If the pattern of stimuli to which they are exposed is incomplete, they tend to perceive it nevertheless as complete; that is, they consciously or subconsciously fill in the missing pieces.
- Thus, a circle with a section of its periphery missing will invariably be perceived as a circle and not as an arc. The need for closure is also seen in the tension and individual experiences when a task is incomplete, and the satisfaction and relief that come with its completion.
- n. **Perceptual Interpretation** The preceding discussion has emphasized that perception is a personal phenomenon. People exercise selectivity as to which stimuli they perceive, and organize these stimuli on the basis of certain psychological principles. The interpretation of stimuli is also uniquely individual, since it is based on what individuals expect to see in light of their previous experience, on the number of plausible explanations they can envision, and on their motives and interests at the time of perception. Stimuli are often highly ambiguous. Some stimuli are weak because of such factors as poor visibility, brief exposure, high noise level, and constant fluctuation. Even stimuli that are strong tend to fluctuate dramatically because of such factors as different angles of viewing, varying distances, and changing levels of illumination. Consumers usually attribute the sensory input they receive to sources they consider most likely to have caused the specific pattern of stimuli.

Past experience and social interactions may help to form certain expectations that provide categories or alternatives that individuals use in interpreting stimuli. The narrower the individual's experience, the more limited the access to alternative categories.

When stimuli are highly ambiguous, an individual will usually interpret them in such a way that they serve to fulfill personal needs, wishes, interests, and so on. How a person describes a vague illustration, what meaning the individual ascribes to an inkblot, is a reflection not of the stimulus itself, but of the subject's own needs, wants, and desires.

Through the interpretation of ambiguous stimuli, respondents reveal a great deal about themselves. How close a person's interpretations are to reality, then, depends on the clarity of the stimulus, the past experiences of the perceiver, and his or her motives and interests at the time of perception.

Group Dynamics

A group may be defined as two or more people who interact to accomplish either individual or mutual goals. The broad scope of this definition includes an intimate "group" of two neighbors who shop together and a larger, more formal group, such as a neighborhood watch association, whose members are mutually concerned with reducing crime in their neighborhood.

Included in this definition, too, are more remote, one-sided, social relationships where an individual consumer looks to others for direction as to which products or services to buy, even though these others are largely unaware that they are serving as consumption related models.

Types of Groups

There are many ways to classify groups, such as by regularity of contact, by structure and hierarchy, by membership, even by size. For example, it is often desirable to distinguish between groups in terms of their size or complexity. However, it is difficult to offer a precise point as to when a group is considered large or small.

A large group might be thought of as one in which a single member is not likely to know more than a few of the group's members personally or be fully aware of the specific roles or activities of more than a limited number of other group members. In contrast, members of a small group are likely to know each member personally and to be aware of every member's specific role or activities in the group.

For example, each staff member of a college newspaper is likely to know all the other members and be aware of their duties and interests within the group. In the realm of consumer behavior, we are principally concerned with the study of small groups, since such groups are more likely to influence the consumption behavior of group members.

- **Primary versus Secondary Groups**—If a person interacts on a regular basis with other individuals (with members of his or her family, with neighbors, or with co-workers whose opinions are valued), then these individuals can be considered a primary group for that person.

On the other hand, if a person interacts only occasionally with such others, or does not consider their opinions to be particularly important, then these others constitute a secondary group for that person. From this definition, it can be seen that the critical distinctions between primary and secondary groups are the perceived importance of the groups to the individual and the frequency or consistency with which the individual interacts with them.

- **Formal versus Informal Groups**— Another useful way to classify groups is by their formality; that is, the extent to which the group structure, the members' roles, and the group's purpose are clearly defined. If a group has a highly defined structure (for example, a formal membership list), specific roles and authority levels (a president, treasurer, and secretary), and specific goals (to support a political candidate, assist the homeless, increase the knowledge or skills of members), then it would be classified as a formal group.

The local chapter of the American Red Cross, with elected officers and members who meet regularly to discuss topics of civic interest, would be classified as a formal group. On the other hand, if a group is more loosely defined- if it consists, say, of four women who were in the same college sorority and who meet for dinner once a month, or three co-workers who, with their spouses, see each other frequently then it is considered an informal group.

From the standpoint of consumer behavior, informal social or friendship groups are generally more important to the marketer, since their less clearly defined structures provide a more conducive environment for the exchange of information and influence about consumption-related topics.

- **Consumer-Relevant Groups** To more fully comprehend the kind of impact that specific groups have on individuals, we will examine six basic consumer-relevant groups: the family, friendship groups, formal social groups, shopping groups, consumer action groups, and work groups.
- **The Family**— An individual's family is often in the best position to influence his or her consumer decisions. The family's importance in this regard is based upon the frequency of contact that the individual has with other family members and the extent of influence that family has on the establishment of a wide range of values, attitudes, and behavior.
- **Friendship Groups**— Friendship groups are typically classified as informal groups because they are usually unstructured and lack specific authority levels. In terms of relative influence, after an individual's family, his or her friends are most likely to influence the individual's purchase decisions.
- **Formal Social Groups**— In contrast to the relative intimacy of friendship groups, formal social groups are more remote and serve a different function for the individual. A person joins a formal social group to fulfill such specific goals as making new friends, meeting "important" people (e.g., for career advancement), broadening perspectives, pursuing a special interest, or promoting a specific cause.

Because members of a formal social group often consume certain products together, such groups are of interest to marketers. Membership in a formal social group may influence a consumer's behavior in several ways. For example, members of such groups have frequent opportunity to informally discuss products, services, or stores. Some members may copy the consumption behavior of other members whom they admire.

- **Shopping Groups**— Two or more people who shop together- whether for food, for clothing, or simply to pass the time- can be called a shopping group. Such groups are often offshoots of family or friendship groups. People like to shop with others who are pleasant company or who they feel have more experience with, or knowledge about, a desired product or service.

Shopping with others also provides an element of social fun. In addition, it reduces the risk that a purchase decision will be socially unacceptable. In instances where none of the members have knowledge about the product under consideration, a shopping group

may form for defensive reasons; members may feel more confident with a collective decision.

- **Consumer Action Groups**— A particular kind of consumer group- a consumer action group-has emerged in response to the consumerist movement. Consumer action groups can be divided into two broad categories: those that organize to correct a specific consumer abuse and then disband, and those that organize to address broader, more pervasive, problem areas and operate over an extended or indefinite period of time. a group of tenants who band together to dramatize their dissatisfaction with the service provided by their landlord, or a group of irate neighbors who unite to block the establishment of a drug treatment clinic in a middle-class neighborhood, are examples of temporary, cause specific consumer action groups.
- **Work Groups**— The sheer amount of time that people spend at their jobs— frequently more than thirty-five hours per week— provides ample opportunity for work groups to serve as a major influence on the consumption behavior of members. Both the formal work group and the informal friendship/work group have the potential for influencing consumer behavior.

The formal work group consists of those individuals who work together as a team. Their direct and sustained work relationship offers substantial opportunity for one or more members to influence the consumption-related attitudes and activities of other team members.

Informal friendship/work groups consist of people who have become friends as a result of working for the same firm, whether or not they work together as a team. Members of informal work groups may influence the consumption behavior of other members during coffee or lunch breaks or after-hours meetings.

Social Surroundings

While social class can be thought of as a continuum- a range of social positions- on which each member of society can be placed, researchers have preferred to divide the continuum into a small number of specific social classes, or strata. Within this framework, the concept of social class is used to assign individuals or families to a social class category.

Consistent with this practice, social class is defined as the division of members of a society into a hierarchy of distinct status classes, so that members of each class have relatively the same status and members of all other classes have either more or less status.

To appreciate more fully the complexity of social class, we will briefly consider several underlying concepts pertinent to our definition.

Social Class and Social Status- Researchers often measure social class in terms of social status; that is, they define each social class by the amount of status the members of that class have in comparison with members of other social classes.

In the behavioral sciences, status is frequently conceptualized as the relative rankings of members of each social class in terms of specific status factors.

For example, relative wealth (amount of economic assets), power (the degree of personal choice or influence over others), and prestige (the degree of recognition received from others) are three popular factors frequently employed in the estimation of social class.

When it comes to consumer behavior and marketing research, status is most often defined in terms of one or more of the following convenient demographic (socioeconomic) variables: family income, occupational status, and educational attainment.

These socioeconomic variables, as expressions of status, are used by marketing practitioners on a daily basis to measure social class.

Social Class is Hierarchical—Social-class categories are usually ranked in a hierarchy ranging from low to high status. Thus members of a specific social class perceive members of other social classes as having either more or less status than they do.

Too many people, therefore, social-class categories suggest that others are either equal to them (about the same social class), superior to them (higher social class), or inferior to them (lower social class).

This hierarchical aspect of social class is important to marketers. Consumers may purchase certain products because they are favored by members of their own or a higher social class and they may avoid other products because they perceive them to be “lower-class” products.

Social Class and Market Segmentation—The various social class strata provide a natural basis for market segmentation for many products and services. In many instances, consumer researchers have been able to relate product usage to social-class membership.

Thus marketers can effectively tailor products or services, channels of distribution, and promotional messages to the needs and the interests of a specific social stratum.

Social Class and Behavioral Factors—The classification of society’s members into a small number of social classes has enabled researchers to note the existence of shared values, attitudes, and behavioral patterns among members within each social class, and differing values, attitudes, and behavior between social classes.

Consumer researchers have been able to relate social-class standing to consumer attitudes concerning specific products, and to examine social-class influences on the actual consumption of products.

Social Class as a Frame of Reference—Social-class membership serves consumers as a frame of reference (i.e., a reference group) for the development of their attitudes and behavior. In the context of reference groups, we might expect members of a specific social class to turn most often to other members of the same class for cues (or clues) as to appropriate behavior.

Social-class Categories—There is little agreement among sociologists on how many distinct class divisions are necessary to describe adequately the class structure of the United States.

Most early studies divided the social-class organizations of specific communities into five class or six-class social structures. However, other researchers have found nine-class, four-class, three-class, and even two-class schemes to be suitable for their purposes.

The choice of how many separate classes to use depends on the amount of detail the researcher believes is necessary to explain adequately the attitudes or behavior under study.

Marketers are interested in the social-class structures of communities that offer potential markets for their products, and in the specific social class level of their potential customers.

the number and diversity of social-class schemes, and show the distribution of the United States population in terms of several different sub-divisions (five category, six category and seven category subdivisions).

Number and Diversity of Social-class Schemes

Two-category social-class schemes
Blue-collar, white-collar
Lower, upper
Lower, middle
Three-category social-class schemes
Blue-collar, gray-collar, white-collar
Lower, middle, upper
Four-category social-class scheme
Lower, lower-middle, upper-middle, upper
Five-category social-class schemes
Lower, working-class, lower-middle, upper-middle, upper
Lower, lower-middle, middle, upper-middle, upper
Six-category social-class scheme
Lower-lower, upper-lower, lower-middle, upper-middle, lower-upper, upper-upper
Seven-category social-class scheme
Really lower-lower, a lower group of people but not the lowest, working class, middle class, upper-middle, lower-upper, upper-upper
Nine-category social-class scheme
Lower-lower, middle-lower, upper-lower, lower-middle, middle-middle, upper-middle, lower-upper, middle-upper, upper-upper.

In Indian context, six category social-class schemes are used more frequently.

Promotion Mix: Direct selling, Advertising, Sales Promotion and Public Relations

Introduction

Broadly speaking, promotion means to push forward or to advance an idea to gain its acceptance and approval. Promotion is any communicative activity whose main object is to move forward a product, service or idea in a chain of distribution. It is an effort by a marketer to inform and persuade buyers to accept, use, recommend, and repurchase the idea, good or service which is

being promoted. Thus, promotion is a form of communication with an additional element of persuasion.

The promotional activities always attempt to affect knowledge, attitudes, preferences, and behavior of recipients i.e. buyers. In any exchange activity, communication is absolutely necessary. The company may have the best product, package etc. but still people may not buy the product if they haven't heard of it. The marketer must communicate to his prospective buyers and provide them with adequate information in 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.

Thus promotion is the process of marketing communication involving information, persuasion and influence. Promotion has three specific purposes.

1. It communicates marketing information to consumers, users, and prospects.
2. Besides just communication, promotion persuades and convinces the buyers.

3. Promotional efforts act as powerful tools of communication.

Providing the cutting edge to its entire marketing program. Thus promotion is a form of non-price competition. Promotion is thus responsible for awakening and stimulating demand, capture demand from rivals and maintaining demand for products even against keen competition. Every company can choose from the following tools of promotion, popularly known as the promotion-mix variables:

1. Advertising,
2. Sales Promotion,
3. Personal Selling,

4. Public Relations

1. **Advertising** - Advertising is perhaps the most important tool of promotion that companies use to direct persuasive communications to target buyers and publics. Advertising is defined by the American Management Association as "any paid form of non-personal presentation and promotion of ideas, goods or services by an identified sponsor".

Advertising through various media like magazines, newspapers, radio, television, outdoor display etc., has many purposes: "long-term build-up of the organization's corporate image (institutional advertising), or long-term build-up of a particular brand (brand advertising), information dissemination about a sale, service or event (classified advertising), announcement of a special sale (sale or promotional advertising) and advocacy of a particular cause (advocacy advertising)". Organizations obtain their advertising in different ways.

In small companies, advertising is handled by someone in the sales or marketing department who works with an advertising agency. Large companies on the other hand, set up their own advertising departments, whose job is to develop the total budget, approve advertising agency ads and campaigns, dealer displays etc.

In developing an advertising program, marketing managers must always start with the identification of the target market and buyer motives then proceed to make the five major decisions in developing advertising program, known as the five Ms:

1. What are the advertising objectives (Mission)
2. How much can be spent (Money)

3. What messages should be sent (Message)
4. What media should be used (Media)
5. How should the results be evaluated (Measurement)

1. **Setting the advertising objectives** The first step in developing an advertising programme is to set the advertising objectives. These objectives must flow from prior decisions on the target market, market positioning and marketing mix.

The objectives can be classified on the basis of the aim which can be either to (a) inform the target about the product features, performance, service available, a price change or new uses etc. (called informative advertising) (b) to persuade the prospect to maybe remain brand loyal, or switch brands, or to purchase now etc. (called persuasive advertising) or



(c) to remind the buyer or the prospect about the product or its features, price where to buy it from etc. (called reminder advertising).

The choice of the advertising objectives should be based on a thorough analysis of the current marketing situation, e.g. if the product has reached its maturity stage in its product-lifecycle, and the company is the market leader, and if the brand usage is low, the proper objective should be to stimulate more brand usage (as in the case of Colgate toothpaste or Surf).

On the other hand, if the product is new and at the introduction stage of the PLC and the company is not a market leader, but its brand is superior to the leader, (as in the case of Captain Cook's salt) then the proper objective may be to convince the prospects about the brand's superiority.

2. **Deciding on the advertising budget** After determining the objectives, the company can proceed to establish its advertising budget for each product. Every company would like to spend the amount required to achieve the sales goal. But how should it decide how much to spend on advertising. There are several methods from which a company can choose from while deciding on how much to spend:

a. **What-all-you-can-afford method:** Many companies set the promotion budget at what they think the company can afford. However, this method completely ignores the role of promotion as an investment and the immediate impact of promotion on sales volume. It leads to an uncertain annual promotion budget.

b. **Percentage of sales method:** Many companies set their promotion expenditure at a specified percentage of sales (either current or anticipated). A number of advantages are claimed for the percentage of sales method.

First, it means that promotion expenditures would vary with what the company can "afford". Second, it encourages management to think in terms of the relationship between promotion cost, selling price and profit per unit. Third, it encourages competitive stability to the extent that competing firms spend approximately the same percentage of their sales on promotion.

c. **Competitive parity method:** Some companies set their promotion budget to achieve parity with their competitors. Two arguments have been advanced for this method. One is that the competitors' expenditures represent the collective wisdom of the industry and second is that maintaining a competitive parity helps prevent promotion wars.

d. **Objective-task method:** This method calls upon marketers to develop their promotion budgets by defining their specific communication objectives, determining the tasks that must be performed to achieve these objectives, and estimating the costs of performing these tasks.

The sum of these costs is the proposed promotion budget. This method has the advantage of requiring management to spell out its

assumptions about the relationship between the amount spent, exposure levels, trial rates and regular usage.

3. **Deciding on the message** Many studies on 'sales effect of advertising expenditures' neglects the message creativity. One study found that the effect of the creativity factor in a campaign is more important than the amount of money spent.

Only after gaining attention can a commercial help to increase the brand's sales. Advertisers go through the following steps to develop a creative strategy message generation, message evaluation and selection and message execution.

- **Message Generation:** In principle, the product's message (theme, appeal) should be decided as part of developing the product concept; it expresses the major benefit that the brand offers. Creative people use several methods to generate possible advertising appeals.

Many creative people proceed inductively by talking to consumers, dealers, experts and competitors. Consumers are the major source of good ideas. Their feelings about the strength and shortcomings of existing brands provide important clues to creative strategy.

How many alternative ad themes should the advertiser create before making a choice? The more the advertisements created, the higher the probability that the agency will develop a first-rate appeal. Yet, the more time it spends on creating ads, the higher the costs. Thus, there must be some optimal number of alternative ads that an agency should create and test for the client.

- **Message Evaluation and Selection:** The advertiser needs to evaluate the alternative messages. A good ad normally focuses on one central selling proposition without trying to give too much product information, which dilutes the ad's impact.

Messages should be rated on desirability, exclusiveness and believability. The message must first say something desirable or interesting about the product. The message must also say something exclusive or distinctive that does not apply to every brand in the product category. Finally, the message must be believable.

- **Message Execution:** The impact of the message depends not only upon 'what is said' but also on 'how it is said'. Some ads aim for rational positioning (designed to appeal to the rational mind) e.g. Surf-washes clothes whitest, whereas other advertisements aim for emotional positioning, which appeal to the emotions of love, tenderness, care etc. The choice of headlines, copy and so on, can make a difference to the ad's impact. The advertiser usually prepares a copy strategy statement describing the objective, content, support and tone of the desired ad. Creative people must find a style, tone, words, and format for executing the message.

All of these elements must deliver a cohesive image and message. Since few people read the body copy, the picture and headline must summarize the selling proposition. A number of researchers of print advertisements report that the picture, headline, and copy are important in this order.

The reader first notices the picture and hence it must be strong enough to draw attention. Then the headline must be effective in propelling the person to read the copy which itself must be well composed.

Even then, a really outstanding ad will be noted by less than 50% of the exposed audience, about 30% of the exposed audience might recall the headline's main point, about 25% might remember the advertiser's name and less than 10% will have read most of the body copy.

4. **Deciding on the media** The advertiser's next task is to choose advertising media to carry the advertising message. The steps are deciding on desired reach, frequency

and impact, choosing among major media types, selecting specific media vehicles, and deciding on media timing.

- (a) **Deciding on reach frequency and impact:** Media selection is the problem of finding the most cost-effective media to deliver the desired number of exposures to the target audience. But what do we mean by the desired number of exposures? Presumably, the advertiser is seeking a certain response from the target audience. e.g. a certain level of product trial. The impact of exposures on audience awareness depends on the exposure's reach, frequency and impact.

- a. **Reach (R):** The number of different persons or households exposed to a particular media schedule at least once during a specified time period.
- b. **Frequency (F):** The number of times within the specific time period that an average person or household is exposed to the message.
- c. **Impact (I):** The qualitative value of an exposure through a given medium e.g. a woman's product in Femina would have a higher impact than in the Dalal Street).

- (b) **Choosing among Major Media Types:** The media planner has to know the capacity of the major media types to deliver, reach, frequency and impact.

The major media types are newspapers, television, direct mail radio, magazines, and outdoor. Media planners make their choice among these media categories by considering several variables, the most important ones being the following:

- **Target-Audience Media Habits:** e.g. television and radio are the most effective media for reaching teenagers.
- **Product:** Women's dressers are best shown in colored magazines.
- **Message:** A message announcing a major sale tomorrow will require radio or newspapers.
- **Cost:** Television is very expensive, whereas newspaper advertising is comparatively much cheaper. What counts are the cost per thousand exposures and not the total cost?

- (c) **Selecting specific media vehicles:** Now the media planner searches for the most cost-effective media vehicle. There are hundreds of magazines and newspapers specially targeted at special audience which a planner chooses from. Similarly on the television

media, there are several channels and programmes from which a choice can be made.

However, every media vehicle entails a certain cost and has certain customer coverage. How to select the most cost-effective media is done using the "Cost-Per-Thousand Criterion" e.g.

if a full page, four color advertisement in India Today costs Rs. 80,000/- and has a readership of 20 lac people, the cost of reaching each one thousand persons is approximately Rs. 40/- The same advertisement in Business Today may cost Rs. 25,000 but reach only 50,000 people, the cost per thousand people would be approximately Rs. 500/-. Similarly, the media planner would rank reach magazine by cost per thousand and favor those magazines with the lowest cost per thousand for reaching the target consumers. Media planners are increasingly using more sophisticated measures of media effectiveness and employing them in mathematical models for arriving at the best media-mix. Many advertising agencies use computer programmes to select the initial media and then make further improvements based on subjective factors cited in the model.

(d) **Deciding on media timing:** The advertiser faces a macro scheduling problem and a micro scheduling problem

- i. **Macro-scheduling Problem:** The advertiser has to decide how to schedule the advertising in relation to seasonal & business cycle trends. Suppose 70% of a product's sales occur between June & September, the firm has three options-either it could follow the seasonal pattern, to oppose the seasonal pattern or to be constant throughout the year.
- ii. **Micro-scheduling Problem:** The micro scheduling problem calls for allocating advertising expenditures within a short period to obtain the maximum impact.

5. **Evaluating advertising effectiveness** Good planning and control of advertising depends critically on measures of advertising effectiveness. Most advertisers try to measure the communication effect of an ad that is its potential effect on awareness, knowledge or preference. They would like to measure the sales-effect but often find it is too difficult to measure. Yet both can be researched.

Communication-Effect Research: Communication-effect research seeks to determine whether an ad has been able to communicate effectively i.e. copy testing. It can be done before an ad is put into media and after it is printed or broadcast. There are three major methods of advertising pre-testing:

1. **Direct-rating method:** Which asks consumers to rate alternative ads?
2. **Portfolio tests:** entail a group of consumers to view and/or listen to a portfolio of advertisements and then they are asked to recall all the ads and their content, aided/unaided by the interviews.
3. **Laboratory tests:** use equipment to measure consumer's physiological reactions-heartbeat, blood

pressure, pupil dilation etc. which measure the head's attention-getting power.

Sales Effect Research: Communication-effect advertising research helps advertisers assess advertising's communication effects but reveals little about its sales impact. Advertising's sales effect is generally harder to measure than communication effect. Sales are influenced by many factors besides advertising, such as the product's features, price, availability & competitors' actions. Researchers try to measure sales impact through analyzing either historical or experimental data.

The historical approach involves correlating past sales to past advertising expenditures on a current basis using advanced statistical techniques. Other researchers use experimental design to measure the sales impact of advertising. Instead of spending the normal percentage of advertising to sales in all territories, the company spends more in some territories and less in others. These are called high-spending and low-spending tests.

If the high-spending tests produce substantial sales increases, it appears that the company has been under spending. If they fail to produce more sales and if low-spending tests do not lead to sales decreases, then the company has been overspending. These tests, of course, must be accompanied by good experimental controls.

6. **Advertising agencies and profile of advertising in India** Today, the advertising job has become so complex and large, that normally no business firm chooses to handle the function directly.

They employ the services of advertising agencies. These agencies carry forward the task of planning, execution and evaluation of the promotional campaigns of companies. Stanton has defined an advertising agency as "an independent company rendering specialized services in advertising in particular and marketing in general."

They are independent concerns working as a specialist, an agent or consultant of the advertiser. They perform all activities right from preparation and development of advertising copy to the evaluation of the effectiveness of the advertising programme. Advertising agencies render a lot of services to advertisers like

- Copywriting,
- Photographing,
- Media planning,
- Buying of space,
- Marketing research,
- Public relations,
- Merchandising,
- Sales promotion,
- Forwarding the advertising material etc.

All these specialized services help the advertisers in raising the effectiveness of advertising.

Advertising in the Indian perspective

In a country like India, where we find diverse languages, low-income levels, large-scale illiteracy, the growth in advertising has also been slow as a natural consequence.

An experienced marketing man in India feels that the greatest difficulty in India is to find a common link of communication for the entire country. The advertising campaigns are usually not conceived in Indian languages and are often translations of the original advertisement in English. The advertising themes lack Indian images, associations and expressions. India being a country of villages, the ultimate task before the advertising men is to make the advertising appeal simple.

No doubt to reach and influence the rural market is a challenge. However, in the yester decades, we find multifaceted changes in our socio-economic set-up, an increase in the pace of industrialization & an increase in the level of income of the general masses. We also find satisfactory developments in the field of education and all these

Developments have paved wider avenues for advertisements. The technological sophistication in the field of mass communication has also been instrumental in making the advertising come of age. Indian advertising practices are undergoing a see-saw change and the credibility would probably be to the rising tempo of industrialization in all the sectors of the Indian economy. Of late, the Indian businessmen have learnt to appreciate and visualize the social responsibility of business.

Hence, it is pertinent that advertising is given new orientation. With these developments, advertising has become a communication device as well as an indispensable weapon in the armory of today's business. Even the area of advertising research needs special attention. Advertising thus is a sensitive tool of promotion-mix with a very wide coverage and now that the level of consumerism and competition is

reaching its peak in India too, business houses have understood that they need the effective tool of advertising to promote the special selling proposition of product to their prospects.

Sales Promotion

“Sales Promotion is a direct and immediate inducement that adds an extra value to the product so that it prompts the dealers, distributors or the ultimate consumers to buy the product.” According to the American Marketing Association, “Sales promotion means to give short-term incentives to encourage purchase or sale of a product or service. Sales promotion includes those activities that supplement both personal selling and advertising, and co-ordinate them and help to make them effective, such as display, shows and expositions, demonstrations and other non-recurrent selling efforts not in the ordinary routine”.

Sales promotion helps in solving the short-term problems of the marketing manager, the impact of these methods is not very lasting or durable and the

results of these efforts are not as lasting as those of advertising and personal selling. Sales promotion is more of a catalyst and a supporting communication effort to advertising and personal selling.

1. **Objectives of sales promotion** Sales promotions, as a tool of communication and promotion, fulfils the following objectives:

- a. Sales promotion helps in introducing new products.
- b. It also helps in overcoming any unique competitive situation.
- c. It is useful for unloading the accumulated inventory or stock of the goods in the market.
- d. It can be used for overcoming the seasonal slumps in sales.
- e. Sales promotion helps in getting new accounts i.e. clients or customers.
- f. It helps in retrieving the lost accounts.
- g. It acts as a support and supplement to the advertising effort.
- h. It also acts as a support and supplement to the salesmen's efforts.
- i. It aims at persuading salesmen to sell the full line of the products and not just concentrate on a few products.
- j. It helps in persuading the dealer to buy more stock from the company i.e. to increase the size of the order.
- k. Its objective is to create a stronger and quicker response from the consumers.
- l. It also helps to boost drop sales of any product of the company.

2. **Sales promotion techniques** The sales promotion techniques or tools have three distinctive features:

- (a) **Communication**-Sales promotion attracts the attention of the consumer and gives him such information that he is led to the product or service.
- (b) **Incentive**: they give some incentive, concession, inducement or contribution that gives added value to the consumer.
- (c) **Invitation**: They give a distinct invitation to the consumer to enter into a transaction with the dealer or the company.

The various tools or techniques of sales promotion can be described below:

1. **Sales promotional letters**: Several companies utilize the medium of letters for sales promotion. These letters serve different purposes. Some times they are used to give information about the company's products, at other times; they are used as reminders for the customers to continue to buy a particular brand. Some letters seek information from the customers regarding various aspects of their purchases.

2. **Point of purchase (POP) displays**: This is the most widely used sales promotional tool. Various kinds of display materials like posters, danglers, stickers, mobile wobblers and streamers are used at the retailer's outlet to induce customers to purchases. POP displays are generally useful in the case of products like liquors for

which advertising is prohibited. At times, to enhance the display effect, manufacturers used different approaches such as illuminated designs and motion

displays etc. companies use the technique of mass display within the limited space available in the retail store. The stocks are artistically arranged to gain maximum attention. Displays of various types such as window displays, wall display, counter displays or floor displays are also used. The retailer's role is very important from the point of view of displays.

3. **Customer service programmes:** At times, the company organizes and conducts customer service programmes or camps with the aim of providing service to the customers at different points of purchase.

4. **Demonstrations:** Companies do product demonstrations for sales promotion, especially when they are introducing a new product in the market. Demonstrations are usually used for low unit price products like washing powder or high unit price products like washing machines and vacuum cleaners. Demonstrations may be

organized at the retail stores by the company salesmen for the benefit of retailers as well as consumers. Door to door demonstrations and institutional demonstrations are also considered to be highly specialized form of sales promotion. Sometimes demonstrations are organized for influential people such as journalists, media men, opinion leaders, etc, who are invited to see the demonstration of the product. Demonstration is a good sales promotion technique which involves the cooperation of the sales representatives and the prospective customers.

5. **Free samples:** Free samples of the product are offered to persuade the consumer to try them out. By offering free samples to a large section of the new market, a company seeks to gain an entry into that market. For using this tool, the products should be of low cost and subject to frequent purchases. e.g., soaps, detergents, toothpastes, tea, etc.

6. **Contests:** Contests of various kinds are also commonly used as sales promotion tool. There are dealer contests which are exclusively for the dealers of the company and consumer contests for the general public. Companies spend a large amount of money on these contests because they have to be publicized widely and the expenditure on the attractive prizes is also to be covered.

Consumer contests may be in the form of quiz contests, beauty contests, scooter and car rallies, lucky draws, suggesting a brand name, writing a slogan, suggesting a logo, etc. The consumer has

to be induced to get interested in the contest and purchase the product associated with it.

7. **Premiums and free offers, price-off schemes and installment offers:** In the Indian markets today, these tools are being used extensively by different companies. A premium offer is given for a particular product and along with it is a free offer of another product to be given free to anybody buying the product, for e.g., an Ariel bar free with a pack of Ariel washing powder. Price-off schemes are also introduced by different companies from time to time.

e.g. Kelvinator and Alwen refrigerators, Hawkins pressure cooker, etc. Other companies give the installment offer to the consumer for buying their product which is usually high priced and give the consumers the facility of paying a certain amount of money as down payment and pay the balance amount in a specified number of equal installments. This sales promotion measure has been found to be very effective.

8. **Coupons:** These are certificates which promise price reduction to consumer on specified items. Coupons generally perform specific functions for the company. Firstly, they encourage the consumer to make use of the bargain offered and secondly they also serve as an inducement to the channel members for stocking the items of that company.

Coupons may be distributed through newspaper and magazine advertisements or by direct mail or along with the package consisting the product. Coupons are generally used while introducing a new product or for strengthening the image of the product.

9. **Catalogues:** Catalogues carry essential information on the products offered by the company. A well-designed catalogue carries complete information relating to the products, their pictures, sizes specifications, colours, packing, uses and prices. The products are listed and indexed properly in order to facilitate order booking and processing.

10. **Trade fairs and exhibitions:** These tools are based on the premise that 'seeing is believing' and are extensively used. These fairs and exhibitions provide the companies with the opportunity of introducing and displaying their products.

This brings the company's products and consumers in direct contact with each other. Trade fairs and exhibitions are very effective in international marketing and a lot of trade orders and enquiries are generated at the international level also.

11. **Gifts:** Companies also distribute gifts to people like customers, dealers and other influential people. These gifts may include pens, pencils, calendars, diaries, decoration pieces, etc.

The gifts generally carry the company's name and logo. These gifts are intended to create goodwill amongst the various people towards the company and indirectly help in furthering the sales of the company.

12. **Sponsoring major national and international events:** Companies associate themselves with the major national and international events such as sports like cricket, hockey, tennis, golf, etc. The business houses generally sponsor the event as a

whole or may associate themselves with specific aspects of the events. e.g., companies of soft drinks, cigarette manufacturers, etc. The purpose behind sponsoring is to remain a part of the news and get the best of sales promotional efforts in the form of benefits.

Personalselling

It is essential to communicate, persuade and motivate the target customers in order to make the product and price known and acceptable to the target consumers. For this, personal selling is adopted as an effective tool.

The company's sales persons whom may be referred to as the salesmen or sales representatives or sales executives, who are on its payroll, communicate with the target consumers, so as to make an order of sale and motivate them to positively respond to it and finally to clinch the deal. According to the American Marketing Association, "Personal selling can be defined as an oral presentation, in conversation with one or more prospective purchasers, for the purpose of making sales".

According to F.E. Webster, Jr. "Personal selling is a highly distinctive form of promotion. Like other forms of promotion, personal selling is basically a method of communication, but unlike others it is a two-way, rather than unidirectional communication. It involves not only the individual but social behaviour.

Each of the persons in face-to-face contact, salesman and prospect influences the other. The outcome of each sales situation depends heavily upon the success that both the parties experience in communicating with each other and reaching a common understanding of needs and goals.

The main task involved in personal selling is to match specific products with specific consumers so as to secure transfer of ownership". According to K.B. Hass- "Personal selling basically consists of the interpretation of product and service features in terms of benefits and advantages to the buyer and of persuading the buyers to buy the right kind and quantity of the product."

Objectives of personal selling

Personal selling helps in the following major areas:

1. To improve the sales volume of the company's different products.
2. To ensure the proper mix of products in the total sales volume.
3. To increase the market share of the company.
4. To increase the profit of the company.
5. To reduce the overall selling expenses.
6. To gain new accounts and improve business growth.
7. It helps in the appointment of dealers and expansion of the distribution channel.
8. To secure channel members co-operation in stocking as well as selling the products of the company.
9. To achieve the desired proportion of cash and credit sales.

10. To provide pre-sale and after-sale services.
11. To train the dealers and customers.
12. To assist and support other promotional measures.
13. To help in collecting the amounts due from the market.
14. To help in gathering and reporting marketing intelligence.

Public relations

Public relations is a very important and resourceful tool of the promotion mix. According to Kotler, "Public relations induces a variety of programmes designed to improve, maintain or protect a company of product image. e.g., through press conferences, seminars, speeches, annual reports, charitable donations, etc." The major tools in public relations are

- (i) publications: annual reports, brochures, articles, company magazines and news letters.
- (ii) events: special events like news conference, anniversary celebration of the company, sponsoring sports and cultural events.
- (iii) News: the companies find and create favorable news
- (iv) speeches: by company executives at trade associations, sales meetings, etc.
- (v) identity media: companies also use such devices as company logos, stationery, business cards, uniforms, etc., which help in identifying the company.

Public relations (PR) is another important marketing tool, which until recently, was treated as a marketing step-child. The PR department is typically located at corporate headquarters; and its staff is so busy dealing with various public-stockholders, employees, legislators, community leaders- that PR support for product marketing objective tends to be neglected.

Objectives of public relations

1. Social awareness can be created through the PR promotion plan, regarding a product, service, person, organizer, etc.
2. It helps to build credibility by communicating the message for example, in editorials of newspapers, etc.
3. It assists in the launch of new products.
4. It assists in repositioning of a product.
5. It helps in building up consumer interest in a particular product category.
6. It also helps in influencing the specific target groups.

7. Public relations help to define products that have faced problems or complaints from the public.

8. It helps to build the corporate image in such a way that it projects favorably on its products. PR department perform following activities:

- **Press relations-** The aim of press relations is to place newsworthy information into the news media to attract attention to a person, product or service.
- **Corporate communication-** This activity covers internal and external communications and promotes understanding of the organization.
- **Lobbying-** It involves dealing with legislators and government officials to promote or defeat legislation and regulation.
- **Counseling-** Counseling involves advising management about public issues and company position and image.

