

# Chapter - 3

## CONCEPTUAL FRAMEWORK AND RESEARCH METHODOLOGY

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### 3.1 CONCEPTUAL FRAMEWORK

#### 3.1.1 Marketing Defined:

Marketing is defined by Harry L. Hanson in his book titled 'Marketing Text, Techniques and Cases', is "*as the process of discovery and translating consumer needs and wants into product and service specifications, creating demand for these products and services and then, in term, expanding this demand*" (Sontaki, 2005).

Marketing as defined by Philip Kotler and Garry Armstrong (1996) is "*a social and managerial process by which individuals and groups obtain what they need and want through creating and exchanging products and value with others*".

Philip Kotler says, "*Marketing is the analysis, planning, implementation and control of programmes designed to buying desired exchanges with target audiences for the purpose of personal and mutual gain. It relies heavily on the adaption and co-ordination of product, price, promotion and place for achieving response*" (Sontaki, 2005).

In similar way, the American Marketing Association (AMA) also viewed the term marketing as "*the activity, set of institutions, and process for creating, communicating, delivering, and exchanging offerings that have the value for customers, clients, partners, and society at large*" (Kotler, et,al,2015).

United Kingdom Institute of Marketing (UKIM) viewed the term marketing as "*the creative management function which promotes trade and employment by assessing consumer needs and initiating research and development to meet them; it coordinates the resources of production and distribution of goods and services and*

*determines and directs the nature and scale of total efforts required to seek maximum production to the ultimate user” (Sontaki, 2008).*

Marketing expert Theodore Levitt defines marketing as a “ *view point which looks at the entire business process as a highly integrated effort to discover , create, arose and satisfy consumer needs” (Sontaki, 2005).*

Paul Mazur defines marketing as the creation and delivery of standard of living to society. This definition catches the real spirit of marketing process. It has consumer orientation which duly honors the marketing concept which indicates a shift from product to customer orientation, i.e., fulfilment of customer needs and desires (Sharlekar, 2006).

Marketing is a societal process by which individuals and groups obtain what they need and want through creating, offering, and freely exchanging products and services of value with others. For a managerial definition, marketing is often been described as “*the art of selling products”*, but people are surprised when they here that the most important part of marketing is not selling, selling is only the tip of the marketing iceberg (Kotler, 2003).

We see marketing management as the art and science of choosing target markets and getting, keeping, and growing customers through creating, delivering, and communicating superior customer value (Kotler, 2003).

Marketing is a total system of business, on ongoing process of:-

- (i) discovering and translating consumer needs and desire into products and services (through planning and producing the planned products),
- (ii) creating demand for these products and services ( through promotion and pricing),
- (iii) serving the consumer demand (through planned physical distribution) with the help of marketing channels, and then, in turn,
- (iv) expanding the market even in the face of keen competition.

The modern marketer is called upon to set the marketing objectives, develop the marketing plan, organize the marketing function, implement the marketing plan or

programme (marketing mix) and called the marketing programme to assure the accomplishment of the set marketing objectives (Sharlekar, 2006).

In short modern marketing begins with the customer, not with production cost, sales, technological landmarks and it ends with the customer satisfaction and social well-being. Thus, marketing is a system of integrated business activities designed to develop strategies and plan (marketing mixes) to the satisfaction of customer wants to selected market segments or targets.

Marketing is the basic reason for the existence of a business organization. It works as the guide for all the business/non-business organizations. Marketing is said to be the eyes and ears of business organization because it keeps the business in close contact with its economic, political, social and technological environment and informs it of events that can influence its activities as per requirements of the market. Marketing helps in having a good range of products in constant demand and suggest it to the management for improving and developing new products to satisfy the changing customer needs. Marketing satisfies customer needs by providing form utility, person utility, exchange utility, place utility and time utility (Sharlekar, 2006).

#### Form Utility

Raw Materials ---- converted into ---- Finished Goods

(Understanding Customers' Requirements)

#### Person Utility

Marketer ---- transfer goods ---- Customers

(Understanding Customers' Requirements)

#### Exchange Utility

Seller ---- establishing contact ---- Buyers

(As per the requirements of customers)

#### Place Utility

Channel of ---- physical distribution ---- Buyers

(As per convenience of customers)

#### Time Utility

Warehousing ---- making available ---- Customers

Goods when needed

Creating time utility

(As per Customers' requirements)

Thus, the term ‘marketing’ can be summed up as consisting of:

- sales in a planned way;
- creation of customers;
- creating demand and satisfying it.

Marketing is the task of creating, promoting and delivering goods and services to customers and businesses. So marketer should be skilled in stimulating demand for a product, but this is too limited views of the tasks marketers perform (Kotler, 2003). Just as production and logistics professionals are responsible for supply management, marketers are responsible for demand management. Marketers seek to influence the level, timing and composition of demand to meet the organizational objectives (Kotler, 2003).

After a decade, the American marketing Association has updated its definition of marketing to put stronger emphasis on the power of building strong customer relationships. The AMA is a respected organization of 38,000 members that has been around for more than six decades. Many in the industry see it as setting the standards of marketing practices and education.

The previous AMA definition of marketing, active since 1985, was based more upon traditional definitions: *“Marketing as a process of planning and executing conception, pricing, promotion and distribution of goods, ideas and services to create exchanges that satisfy individual and organizational goals.”*

The new definition, unveiled in 2015, is:

*“Good marketing is no accident, but a result of careful planning and execution using state-of-the-art tools and techniques.”*

We have discussed several definitions with their features but for our study purpose we accept the definition given by Philip Kotler and Gary Armstrong (1996) is *“a social and managerial process by which individuals and groups obtain what they need and want through creating and exchanging products and value with others.”*

### **3.1.2 Marketing as a System**

System is assemblage of things connected or interrelated so as to form a complex unity; a whole composed of parts and sub-parts in orderly arrangement according to some scheme or plan (Prasad, 1997).

The following are the features of a `system` are seen as particularly important:

- A system is basically a combination of parts or sub-systems.
- Parts and sub-parts of a system are manually related to each other, some more, some less; some directly, some indirectly.
- A system is not merely the totality of parts or sub-parts but their arrangement is more important.
- A system can be identified because it has a boundary. In the case of physical system, this boundary is quite visible and, therefore, the system can be identified easily.
- The boundary of a system classifies into two parts: closed system and open system. All living organism are open systems while all non-living systems are closed systems.
- System transforms inputs into outputs. This transformation system is essential for the survival of system.

For the purpose of the present study, marketing is also regarded as a system. This is because; marketing draws heavily from system concepts. When system concepts are applied to marketing, it may be seen in the following ways:

- Marketing as a social system.
- Marketing as an open system.
- Marketing as an adaptive approach.
- Marketing as a dynamic system.
- Marketing also as a multi-level and multi-dimensional system.

Indeed, the system approach provides the best model for marketing activity. It places emphasis on the inputs to the system and outputs produced. It helps in the determination of marketing programmes and the total marketing mix (Prasad, 1997).

Kotler (1994) described marketing as a system showing thereby its elements, the various functions involved the system boundary, and also the interaction of the system with its given environment. Adoption of a systems approach provides a good basis for the logical and orderly analysis of the marketing activities. It stresses

marketing linkages inside and outside the firm. It emphasizes changing environment and the inference of marketing with its micro and macro environment.

### **3.1.3 Elements of the Marketing System collectively form the Marketing Mix**

Marketing plan is a system and its parts and components are sub-systems. There are four components of sub-systems of marketing plan or marketing mix viz., product, price, promo promotion and place. Marketing management centres on these four areas of marketing mix or plan. Marketing information system provides data for decision-making and all marketing areas or problems. It is also a part of marketing system (Sharlekar, 2006).

The idea of the 'mix' of marketing functions was conceived by Prof. Neil H. Borden of Harvard Business School. According to him, "*the marketing mix refers to the appointment of effort, the combination of designing, and the integration of elements of marketing into the programme of 'mix' which, on the basis of an appraisal of the market forces, will best achieve the objectives of an enterprise at a given time*" (Nair,1994).

Thus, marketing mix is a plan designed to analyze the marketing problems. The problems are analyzed by –

- 1) Utilizing the important forces emanating from the market which influence the marketing operations of an enterprise (for example, product acceptance, demand, price, etc.); and
- 2) Adopting procedures and policies for an efficient marketing programme (for example, distribution policies, promotional policies, etc.).

The marketing mix denotes the combination of various elements which in their totally constitutes a firm's 'marketing system'. These elements are often described as four P's: Product, Price, Placement (Distribution) and Promotion. Marketing mix is an important tool used by marketing managers to design the process of marketing in an organization. Marketing process is conditioned by certain 'controllable' and 'non-controllable' elements. Controllable elements are within the hold of an organization and, therefore, have to be properly 'shaped to achieve marketing and company goals'. These controllable elements are 'mixed' by grouping them into four variables (Four P's) and as 'Marketing Mix'.

Originally, this classification was popularized by E. Jerome McCarthy as produce, place, promotion and price. But later on the 'place' element has been replaced by 'Physical Distribution' (Kotler, 2003).

Further improvement in this concept was introduced by Neil H. Borden by including more sub-elements to make the concept full. The concept of Marketing Mix is useful in designing a marketing strategy to meet the 'uncontrollable' or to nullify their effects. The controllables are sometimes referred to also as external factors or 'market forces'. They are:

- a) Consumer buying behaviour,
- b) Traders' behaviour,
- c) Competitors' behaviour, and
- d) Government behaviour.

Philip Kotler has defined the term marketing mix as *"the set of controllable variables that the firm can use to influence the buyers response."*

Marketing mix is more a tool than a concept. Because, it is a blend of decision's to provide a marketing offer to the selected markets or consumers. The idea behind the development of a mix is that certain combination of four P's will produce greater customer satisfaction than other blends. As such, marketing mix is used as a strategy in developing market planning.

The concept of marketing mix has led to the need for integrating various functions and fitting them into the total fabric of the objectives of an organization" (Nair, 1994). The decisions and activities related to the marketing mix variables viz. product, place (distribution), promotion, and price are as follows (Pride and Ferrell, 1985):

### **The Product variable**

A product can be a good, a service, or an idea. The actual physical production of products is not a marketing activity. However, marketer do research consumers' product wants and design a product to achieve the desired characteristics. They may also create and alter packages and brand names. This aspect of marketing mix is known as the product variable.

### **The Place (Distribution) variable**

To satisfy consumers, products must be available at the right time in a convenient and accessible location. In dealing with the place (distribution) variable, a marketing manager attempts to make products available in the quantities desired to as many customers as possible and to hold the total inventory, transportation, and storage cost as low as possible. A marketing manager may become involved in selecting and motivating intermediaries (wholesalers and retailers), establishing and maintaining inventory control procedures, and developing and managing transportation and storage systems.

### **The Promotion variable**

The promotion variable is used to facilitate exchanges by informing one or more groups of people about an organization and its products. Promotion is used for various reasons for example; it might be used to increase public awareness of a organization or a new product or brand. In addition, promotion is used to educate consumers about product features or to urge people to adopt a particular position on a political or social issue. It may also be used to renew interest in a product whose popularity is wanting.

### **The Price variable**

Consumers are interested in a product's price because they are concerned about the value in an exchange. In the area of the price variable, marketing managers usually have a hand in establishing pricing policies and determining product prices. Because price is important to consumers, it is a critical component of the marketing mix. It often used as a competitive tool; in fact, extremely intense price competition sometime leads to "price wars".

However, as Kotler and Armstrong (1996) emphasized, the four P's represent the seller's view of the marketing tools available for influencing buyers. From a consumer point of view, each marketing tool is designed to deliver a customer benefit. In fact, Robert Lauterborn (1990) suggested that marketer should view the four P's in terms of the customers' four C's:



<b>Four P's</b>	<b>Four C's</b>
Product	Customer needs and want
Price	Cost to the customer
Place	Convenience
Promotion	Communication

From the point of view, it becomes clear that the aim of marketing endeavour should be to meet customers' needs economically and conveniently and with effective communication (Pride and Ferrell, 1985).

### **3.1.4 Focus and orientation of the marketing system depend on 'how marketing is conceptualized':**

The origin of marketing can be traced to people's earliest use of the exchange process: the barter era. With barter, people traded one resource for another- like food for animal pelts. To accommodate exchanges, trading posts, travelling salespeople, general stores, and cities evolved with the standardized monetary system. The modern system of marketing begins with the industrialization of the industry, country, or region (Evans and Berman, 1995). Since the industrial revolution, business management has undergone six distinct concepts of marketing:

- **The Exchange-orientation Concept:** Marketing does involve exchange of a product between and seller and a buyer usually based on money. But modern marketing is not merely an exchange operation. Marketing covers search of unmet customer wants, formulation of marketing strategies, marketing mix, creative selling and advertising, serving the customer and so on. All these other vital ingredients of marketing are conveniently forgotten in exchange oriented marketing approach.
- **The production Concept:** The production concept holds that consumers will favour 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 (Kotler, 1994).
- **The Product concept:** The product concept proposes that consumers favour products offering the most quality, performance or innovative features. However, managers are sometimes caught in a love affair with their products.

They might commit the “*better- mousetrap*” fallacy, believing a better product will by itself lead people to beat a path to their door. A new or improved product not necessarily to be successful unless it’s priced, distributed, advertised and sold properly (Kotler, et.al. 2015).

- **The Selling Concept:** The selling concept is another common approach many firms take to the market. The selling concept holds the consumers, if left alone, will ordinarily not buy enough of the organization’s products. The organization must therefore take an aggressive selling and promotion effort. The selling concept practiced most aggressively with unsought products- those goods buyers doesn’t normally think of buying such insurance and cemetery plots- and when firms with overcapacity aim to sell what they make, rather than make what the market wants. Marketing based on hard selling is risky. It assumed customers coaxed into buying a product not only won’t return or bad-mouth it or complain to consumer organizations but might even buy it again (Kotler, et. al., 2015).
- **The Marketing Concept:** The marketing concept emerged in the mid- 1950’s as a customer centered, sense-and-respond philosophy. The job is to find not the right customers for your products, but the right products for your customers. The marketing concept holds that the key to achieving organizational success is being more effective than competitors is creating, delivering, and communicating superior customer value to your target markets (Kotler, et. al., 2015).

The marketing concept rests on four main pillars, namely, target market, customer needs, coordinated marketing, and profitability (Kotler, 1994)

- **The Societal Marketing Concept:** It is broadened marketing concept. Since 1980, management is called upon to bring about balance of three factors: (a) customer demand satisfaction, (b) public interest (social awareness), and (c) profitability. This new concept is known as the human concept and ecological concept (Sharlekar, 2006). 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 (Kotler, 1994).

### **3.1.5 Within a competitive framework the marketing system essentially has to be consumer-oriented:**

When a marketer adopts a market-oriented business philosophy the guiding principle becomes “*it is more effective to make what customer wants to buy than to sell them what a marketer wants to sell.*” Thus, planning and co-ordination of all company activities rote around the primary goal of satisfying customer demand. The marketing concept is defined as a customer-oriented philosophy duly integrated and implemented through the entire organization in order to serve customers better than competitors and thereby ensured sustained growth and prosperity (Sharlekar, 2006).

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

- We have a steady shift from producer-oriented or sales-oriented business enterprise. Marketing and innovation are now the distinguishing features of a business organization from those of other types of social institutions.
- We have also a gradual shift from *caveat emptor* (buyer beware) to *caveat vendor* (seller beware).

Thus marketing concept as customer-oriented marketing philosophy of the entire business organization has four premises (Sharlekar, 2006):

- Customer Orientation: The essence of modern marketing concept is “the firm must take its marching orders from the market and it must produce what the market needs.”
- Marketing Information System: The marketing concept also emphasizes the role of information as the key to both customer satisfaction and profitability. Customer demand can never be satisfied without integrated marketing programmes based upon adequate and accurate information about customer, customer needs and competition.
- Integrated Marketing Activities: System approach adopts a unified view of the study of marketing. All marketing activities must be properly integrated and coordinated to accomplish a set of objectives.

- **Dual Objectives:** Marketing concept advocates serving the consumers and maximizing profits at the same time. These objectives, though conflicting, can be reconciled. Profit is a by-product of supplying what the customer wants.

Under customer-oriented business planning, market offerings are made to satisfy wants and values of target market and hence customers are bound to respond favorably towards marketing mix. We can differentiate the marketing concept from the production concept as (Sharlekar, 2006):

Production Concept	Marketing Concept
1. It is presumed that firms sell what they would make.	1. Firms sell only what the consumers want.
2. The focus is on performance and cost.	2. The focus is on customer satisfaction.
3. The product line is usually narrow.	3. Wide range of product line is available to suit diverse customer needs and wants.
4. The emphasis is predominantly on product front.	4. Emphasis is given on integrated marketing.
5. The concept works only in a seller market.	5. It enables the firm to move more quickly to capitalize on market opportunities.

Clearly, the focus today is on customer needs and preferences. Product line becomes broad. Pricing is based on perceived benefits provided. Promotion now emphasizes on product benefits and aims to solve customer problems. Market research enables the firms to focus on opportunities and applying new technologies for customer convenience. The adaptation of marketing concept sincerely can easily act as the best response of the business to consumerism (Sharlekar, 2006).

### **3.1.6 Identifying Market Segments and Targets**

Organization cannot connect with all customers in large, broad, or diverse markets. But they can divide such markets into groups of consumers or segments with distinct needs and wants. An organization then needs to identify which market segments it can serve effectively. To compete more effectively, many organization are

now embracing target marketing. Instead of scattering their marketing efforts, they're focusing on those consumers they have greatest chance of satisfying. Effective target marketing requires that marketers (Kotler, et. Al., 2015):

- Identify and profile distinct group of buyers who differ in their needs and wants (market segmentation).
- Select one or more market segments to enter (market targeting).
- For each target segment, establish and communicate the distinctive benefits of the organization's market offering (market positioning).

### **Bases for Segmenting Consumer Markets**

Market segmentation divides a market into well-defined slices. A market segment consists of a group of customers who share a similar set of needs and wants. The marketer's task is to identify the appropriate number and nature of market segments and decide which one to target. The major segmentation variables are-geographic, demographic, demographic, psychographic, and behavioural segmentation (Kotler, et. al., 2015).

**Geographic Segmentation:** Geographic segmentation divides the market into geographical units such as nations, states, regions, countries, cities, or neighborhoods. The company can operate in one or a few areas, or it can operate in all but pay attention to local variations. In that way it can tailor marketing programs to the needs and wants of local customer groups in trading areas, neighborhoods, even in individual stores. In a growing trend called *grassroots marketing*, such activities concentrate on getting as close and personally relevant to individual customers as possible.

**Demographic Segmentation:** Demographic segmentation divides the market on variables such as age, gender, family size, family life cycle, income, occupation, education, religion, race, generation, nationality, and social class. One reason demographic variables are so popular with marketers is that they are often associated with consumer needs and wants.

**Psychographic Segmentation:** Psychographic is the science of using psychology and demographics to better understanding the consumers. In *psychographic segmentation*, buyers are divided into different group on the basis of

psychological/personality traits, lifestyle or values. People within the same demographic group can exhibit different psychographic profiles.

**Behavioural Segmentation:** In behavioural segmentation, marketers divide buyers into groups on the basis of their knowledge of, attitude toward, use of, or response to a product (Kotler, et. al., 2015).

### **Market Targeting**

Market selection is not complete with market segmentation. Segmentation has just thrown up the possible segments. There is the further step to choosing the appropriate ones among them. The marketer has to arrive at the target market or complete the 'market targeting' job. This is sequential to, but not synonymous to market segmentation. It involves a few other tasks after segmentation. It may be apt to describe segmentation as the prelude, or the means, or the tool; choosing the target market is the ultimate purpose and end result (Ramaswamy and Namakumari, 2014).

### **Market Positioning**

Positioning is the act of fixing the locus of the product offer in the minds of the target consumers. The market decides how and around what parameters, the product offer will be placed before the target consumers. He is seeking a platform for his offer; but the platform is in the mind of the target consumer. The significance of positioning can easily understand from the words of David Ogilvy, the advertising expert, "the results of a campaign depends less on how we create the advertising than on how we position the product" (Ramaswamy and Namakumari, 2014).

#### **3.1.7 Adaptation of the marketing mix for effective marketing practices**

For effective marketing, firms in any given industry must continually adapt their marketing practices, to suit changing customary preferences. At one extreme are companies that use a standardized marketing mix world-wide. Standardization of product, advertising, distribution channels and other elements of marketing mix promises the lowest costs because no major changes are introduced to serve consumers in specific country or geographical area. At other extreme is the idea of adapted marketing mix, where the producer adjusts the marketing mix elements to each target market, bearing more costs but for a large market share and profit return (Kotler, 1994).

Marketing experts have suggested a number of possible adaptations that firms might make of their product, promotion, price, and distribution as they enter into foreign markets. Philip Kotler has given a detailed account of how adaptation is possible in all the four P's. His points are summed up below (Kotler, 1994):

### **Product**

Product adaptation involves altering the product to meet local conditions or problems. There are several adaptations. A marketer can produce a regional version of its product. Product invention consists of creating something new. It can take two forms. Backward invention means reintroduce earlier product forms that are well adapted to a foreign country's need. And, forward invention is creating a new product to meet a need in another country.

### **Promotion**

Companies can run the same advertising and promotion campaign used in the home market or changes them for each local market.

The company can change its message at three different levels. It can use one message everywhere, only varying language, name, and colours; the next possibility is to use the same thing globally but adapt the copy to each local market.

Finally, some companies encourage or allow their advertising agencies to adapt the theme and execution to each local market.

The use of media also requires international adaptation because media availability varies from country to country. Marketer must also adapt their sales promotion techniques to different markets.

### **Price**

Several specific pricing options have to be considered before selling products abroad. Companies must deal with price escalation. Transfer prices, dumping charges, and gray markets. To set prices in different countries companies have a number of choices:

- Setting a uniform price everywhere;
- Setting a market-based price in each country;

- Setting a cost-based price in each country.

The pros and cons of each option must be taken into consideration by the marketer while formulating pricing policy (Kotler, 1994).

### **Placement (Distribution)**

Channels of distribution vary considerably among countries. There are striking differences in the number and types of middlemen serving such foreign market. Another difference lies in the size and character of retail units abroad. In view of these differences, it might be necessary for an exporter to efficiently adapt the channel according to individual country's specification. In any case, the marketer should design the channel strategy so as to reach out to the consumer and in a way which the consumer feels is the most convenient one for him (Kotler, 1994).

### **3.1.8 Suitable adaptation of the marketing mix in an export market always offers a special problematic**

Domestic marketing is concerned with the marketing practices within a marketer's home country. From the perspective of domestic marketing, marketing methods used outside the home market are foreign marketing. Therefore, foreign marketing encompasses the operations within a foreign country. For example, an Indian company considers marketing in India as domestic marketing and marketing in US as international marketing. To a US based firm, the opposite is true- US marketing is domestic, and Indian marketing is international (Onkvisit and Shaw, 1998).

Domestic marketing involves one set of uncontrollable derived from the domestic market. International market is much more complex because a marketer faces two or more set of uncontrollable variables originating from various countries. The marketer must cope with different cultural, legal, political, and monetary systems (Onkvisit and Shaw, 1998).

Export marketing is different from domestic marketing in as much as the exchange takes place beyond the frontiers, thereby involving different markets and consumers who might have different needs, wants and behavioural attributes (Vershney and Bhattacharya, 1994).



In fact, the distinctive features of export marketing and the complexities associated with it stem mainly from the three fundamental differences (Vershney and Bhattacharya, 1994).

*First*, the marketing environment comprising the cultural, legal, political, and economic frameworks widely differs among the nations.

*Second*, the pace of the change in the marketing environment is relatively fast compared to the same in the domestic tariff area.

*Third*, the scale and intensity of competition is also different.

Logistics pose an additional problem which is also far more challenging than the same in case of domestic tariff area (Vershney and Bhattacharya, 1994).

Given the aforesaid challenges, every firm or industry often finds itself confronted by four decision-situations:

- a) Deciding whether to engage in and/or continue with export marketing;
- b) Deciding which markets are to be targeted especially and served;
- c) Deciding on the mode of entry into a new market or of consolidating in an existing market; and
- d) Deciding on the export marketing mix.

For an establish exporter, the last one of the above mentioned four decision-situations is the most challenging one. As the marketing environment as well the range and intensity of the competition usually changes, effective export marketing demand a continuous reshuffling, modifying, improving and updating the marketing mix to enable the marketer successfully meet the challenges thrown by the changing needs of the time and situation (Vershney and Bhattacharya, 1994).

## **3.2 DATA SOURCE AND METHODOLOGY**

### **Nature of Study**

The nature of the present study is descriptive one.

## **Nature of Data**

The study is mainly based on secondary data. Moreover information about marketing practices followed by the jute firms in domestic as well as in export market and challenges faced by the jute goods manufacturers in marketing of their products in both the markets have gathered through personal contact with officials.

Besides, to know the various issues regarding marketing practices and to get the appropriate intricacies about the handling of the components of marketing mix by the jute industry involved in marketing activities, the researcher has personally visited to the offices of the Chief Marketing Promotional Officer, National Jute Board (NJB), Kolkata and Indian Jute Mill Association (IJMA), Kolkata.

Moreover, to identify more about the marketing practices followed by the Indian jute industry researcher has visited corporate offices of 15 jute firms in Kolkata and Tripura viz., Gloster Jute Mills Ltd., Budge Budge Co. Ltd., National Jute Manufacturing Corporation Ltd., Kamarhatty Co. Ltd., New Central Jute Mills Co. Ltd., Tripura Jute Mills Ltd., etc. In order to collect information researcher has had detailed discussion with the top officials like, System Officer, Purchase Manager, Commercial Executive and Sales Manager of the different firms.

## **Study Period**

In order to attain the objectives of the study, a period of 13 years, i.e., from 2000-01 to 2012-13 have been considered.

## **Data Source**

In order to collect secondary data, Annual Reports of National Jute Board, Indian Jute Mills Association and Ministry of Textiles, GOI have been considered. Moreover, the data published by the Directorate of Jute Development, Office of Jute Commissioner (Handloom) and Office of the Development Commission (Ministry of Textiles) have also been taken into consideration. Information about the world jute economy has been collected from annual reports published by Food and Agricultural Organization (FAO) and International Jute Study Group (IJSJG). In order to supplement the information procured from aforesaid sources, the researcher has personally visited to the offices of the National Jute Board (NJB), Kolkata and Indian Jute Mill Association (IJMA), Kolkata.

Besides, to know the various facts regarding marketing practices and to get the appropriate intricacies about the handling of the components of marketing mix by the jute industry involved in marketing activities the researcher has had discussions with the officials of National Jute Board (NJB) of India and Indian Jute Mill Association (IJMA).

### **Factor Considered**

In the present study, total production of jute goods, total domestic consumption of jute goods, total export of jute goods and import of jute goods have been taken into consideration to assess the scenario of Indian jute market during the study period. Moreover, the product mix under different traditional jute goods, domestic consumption and export of traditional jute goods have been considered to enlighten Indian jute market as well as international jute market. Furthermore, the product mix under different diversified jute goods, domestic consumption and export of diversified jute goods (JDPs) have been considered to highlight Indian jute market as well as international jute market.

### **Tools Used**

The relevant data have been analyzed with the help of descriptive statistics like Arithmetic Mean, Standard Deviation (SD), Maximum, and Minimum. Further, Compound Annual Growth Rate (CAGR), Annual Growth Rate (AGR) and for trend analysis, linear least squares method have been used.

*Arithmetic Mean:* the most popular and widely used measure of representing the entire data by one value is what most laymen call an ‘average’ and what the statisticians call the arithmetic mean. Its value is obtained by adding together all the items and by dividing this total by the number of items (Gupta, 1997).

*Standard Deviation:* The standard deviation, also called root-mean square deviation, is by far the most popular and most useful measure of dispersion in technical work. The various measures of dispersion that have been discussed so far suffer from one drawback or the other. The range is unstable and its value depends upon extreme items in the series i.e. smallest and largest. Quartile deviation excludes half of the items from consideration. The mean deviation neglects the fact that some deviations are negative and some positive and it treats them all as positive. The

standard deviation removes all these defects to a considerable extent and is the most useful and most popularly used measure of dispersion (Dayal, 1987).

In statistics the standard deviation is always represented by the small Greek letter sigma ( $\sigma$ ). While calculating standard deviation  $\pm$  signs are taken into consideration. The standard deviation is square root of the arithmetic mean of the squares of the deviations (Dayal, 1987).

*Compound Annual Growth Rate:* The compound annual growth rate (CAGR) is the mean annual growth rate of an investment over a specified period of time longer than one year.

To calculate compound annual growth rate, divide the value of an investment at the end of the period in question by its value at the beginning of that period, raise the result to the power of one divided by the period length, and subtract one from the subsequent result (<http://www.investopedia.com/terms/c/cagr.asp>).

$$CAGR = ((\text{End of the period} / \text{Beginning of the period})^{(1/\text{Period length})} - 1) * 100$$

*Annual Growth Rate:* The Annual Growth Rate (AGR) is the average increase in the value over specific interval of time. It is calculated as:

$$AGR = (\text{Current Year} - \text{Previous Year}) / \text{Previous Year} * 100$$

*Least Squares Method:* The method of Least Squares is the most popular method of fitting a trend line to the data. The method of least squares is a mathematical device which places a line through a series of plotted points in such a way that the sum of the squares of the deviations of the actual points above and below the trend line is at the minimum. The method of least squares gives us what is known as the line of best fit. It is a line from which the sum of the deviations of various points on either side is equal to zero. In other words, if we sum up the positive and negative deviations on either side of the line of best fit the sum will be zero. This being so the sum of the squares of these deviations obtained will be the least as compared to the sums of the squares of the deviations obtained by using other lines. It is on account of this fact that this method is known as the method of least squares (Dayal, 1987).

A straight line trend fitted by the method of least squares will be of the general form.

$$Y = a + bX$$

Where **Y** is the dependent variable, **a** and **b** are two unknown constants whose values are determined by solving two normal equations and **X** is the unit of time.

In this study Multiple bar diagrams and Line diagrams is used to represent the variation in trend of export, import and production of jute goods in India during the period 2000-01 to 2012-13.

*Multiple bar diagram* is developed from simple bar diagram. Here two or more sets of numerical information under various category (or classes) can be represented.

*Line diagram* is generally used in statistics to represent time series data. The line diagram helps us to understand how successive values of the variable are related to specified point of time. For constructing a line diagram, two axes of co-ordinates are taken perpendicular to each other, the horizontal one for time and the vertical one for variable under study. The scale of each axis is then selected and the data are plotted. The plotting of variable values has been done against different points of time. The successive points are joined by straight line segments and the chart so obtained is called a line diagram for the given data (Adhikari and Bhattacharjee, 2003).

The data and information processed with the help of MS-OFFICE EXCEL, 2007 Version. The relevant data have been analyzed with the help of descriptive statistics like Arithmetic Mean, Standard Deviation (SD), Maximum, and Minimum. Further, Compound Annual Growth Rate (CAGR), Annual Growth Rate (AGR) and for trend analysis, linear least squares method have been used. Furthermore, line charts and bar diagrams have been used for lucid presentation of the study.