Chapter IV
Marketing Research as an Aid to Product Development Programme
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MARKETING RESEARCH AS AN AID TO PRODUCT DEVELOPMENT PROGRAMME

INTRODUCTION:

In the preceding chapter Product Development Programme as a growth stimulant for small scale industries has been analysed. The conclusion drawn is that for revitalising small scale industries the role played by product development programme is indispensable and that it needs intensive investigations and inquiries about market conditions. It cannot be effectively planned and implemented unless it is supported by an aggressive market research programme carried out by efficient management and other technical specialists. It is in this context that the present chapter is devoted to an analysis of Market Research as an aid to Product Development Programme.

Before analysing the role played by Market Research in the successful operation of a comprehensive product development programme, it seems essential to define Market Research and to discuss how it is conducted.
CONCEPT OF MARKETING:

In the early stage of development scientific marketing activities were generally unknown. Later on, when market conditions developed, manufacturers started undertaking specialised marketing activities such as research, advertising, export sales, sales promotion, etc.

During the second stage, two important changes took place in the organisational structure of many firms. First, all marketing activities, such as advertising, marketing research and sales promotion were grouped under one marketing executive often called as Sales Manager. Second, activities such as sales training, product servicing, and sales analysis which were formerly in departments other than Sales or Marketing were also grouped under the marketing umbrella.

In the third stage of evolutionary process, some firms adopted the marketing concept and put into action through the medium of fully integrated marketing management and, thus, all marketing activities became the responsibility of the market manager. For example, inventory control, transportation, warehousing and other aspects of product planning came to be turned over to the marketing manager, often making decisions regarding packaging, labeling, design,
colour and other product features.

Finally, in the fourth stage, the concept of marketing changed into a philosophy in which the entire business unit becomes a marketing organisation, manufacturing and selling a product from the marketing point of view. The executives determine the nature of the business and develop an overall marketing research programme.

From the above discussion it is revealed that the concept of marketing in its modern form is a system of interacting business activity designed to satisfy consumers' wants. Today, the marketing concept has been recognised as a philosophy of business and, hence, the firms have moved up to reshape the organisational structure and management thinking to implement this concept in a planned way.

Now, marketing is an integrated effort directed to discover, create, arouse and satisfy consumer needs. It has been defined as "the performance of business activities that direct the flow of goods and services from producer to consumer or user". It is a "process or a system, a series of related activities and events each one leading to the next, and all intended to lead

to customer satisfaction". As a matter of fact marketing processes begin long before the goods go into production. Various decisions are made regarding the product and its market, its pricing, and promotion in order to satisfy the needs of the potential buyers. It is, therefore, for the manufacturers to realise what is good for the consumer. The marketing policy should be so designed that the product must be marketed to consumers before its full value is realised. Thus, in order to achieve business goals it is commonly accepted that an aggressive marketing research programme is essential.

Further, as a by-product of the industrial revolution, the urban centers in developing countries like India are now growing and home handicraft operations are moving into factories. Under the condition when the economy became more complex, the channels through which trade flowed became longer; better methods and techniques had to be devised to market the industrial output. The importance of market research, therefore, came to be fully realised in this evolutionary period.

Now as the economy grows and industrialisation makes strides, more effective marketing system will be needed. Furthermore, over the past century jobs in marketing field have increased at a much more rapid speed than jobs in production not only in India but also in other advanced countries of the world. It is pointed out that the number of people engaged in retailing and wholesaling activities increased more than twelve times from 1870 to 1950, as contrasted with a three-fold increase in the number of workers during the same period\(^1\). This tremendous increase in marketing profession is a clear reflection on the increasing role of marketing services in the economic development and rapid industrialisation.

The vital importance of marketing in the successful operation of an enterprise has also been realised by the National Association of Manufacturers. The Association opine: "In this exciting age of change, marketing is the beating heart of many operations. It must be considered a principal reason for corporate existence. The modern concept of marketing recognises its role as a direct contributor to profits, as well as sales volume"\(^2\).

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MARKETING RESEARCH - DEFINED:

The term marketing research has been variously defined by different writers. However, the essence of "Marketing Research" is "the systematic, objective, and exhaustive search for and study of the facts relevant to any problem in the field of marketing". According to American Marketing Association marketing research is "the systematic gathering, recording, and analysing of data about problems relating to the marketing of goods and services". In this sense, marketing research includes various types of research or analysis, such as (1) Market analysis, which is a study of the size, location, nature, and characteristics of markets, (2) Sales analysis, which is largely an analysis of sales data, (3) Consumer analysis, which is concerned chiefly with the discovery and analysis of consumer attitudes, reactions, and preferences, and (4) Advertising research, which is related with the management of advertising campaign.

As a tool of management, marketing research involves, among other things, the study of buyers' purchasing motives and habits, their tastes, needs and wants, the strength of competitors, the effectiveness of one's promotional efforts, consumers' and general opinions about one's products and packages, the extent of brand recognition, etc. It can and should function as a means of measuring change in a process. In essence, this provides to the firms' management quality control informations. The discovery of change may provide a red or green signal that the process needs to be investigated in order to see what has happened and why and thereby enables management to adopt remedial measures and to take advantage of an opportunity. In this way, marketing research turns up new ideas which can be programmed into the appropriate steps in the administrative process. Generally speaking, marketing research contributes in four ways:

(a) It keeps the business in touch with its markets.
(b) It provides an idea for the improvement of old products as well as for totally new products.

(c) It assists in Sales management.
(d) It measures/determines market potential.

However, marketing research, by itself, cannot solve business problems. What it can do is to narrow the field of uncertainty in which the particular business problems are set and, thus facilitate effective decisions. For instance, if a firm wants to increase the price of its product, it should not do so without taking into account the effects of such a price rise on the total demand for the item. For this purpose, marketing research is required to advise the firm's management whether it can, under the prevailing conditions, think in terms of a price rise at all. If a price rise is possible, to what extent it should be; whether it should be 10 per cent, 15 per cent, 20 per cent or more. If a decision is taken pre-emptorily by the firm's business executives to put up the price without studying the effect of such a rise on its sales, the firm will come to grief. Hence, marketing research should be used only by responsible men who know how to handle it.

SCOPE OF MARKETING RESEARCH:

It is generally believed that in the capitalistic system of economy, the consumer is the king. This is however a controversial issue. Whatever may be the
correctness or otherwise of this view, it cannot be denied that in the modern industrial economy, the consumer holds a key position and that without knowing his changing needs and tastes no business unit can run smoothly and successfully. Instead, modern technical progress has led to mass-production, which in turn necessitate research into the marketing aspects of the products. In olden days, when the producer more or less knew who were his ultimate consumers, he never worried about the marketing problems. But, in the modern industrial economy, the producer has hardly any direct knowledge of his ultimate consumer. This is particularly true in the case of consumer goods. It is on account of this fact that the need for market research has arisen. Though mass-production has brought down per unit cost of production, there is a corresponding increase in the cost of distribution. It goes without saying that of every U.S.Dollar which the consumer pays for his purchase, half is on account of the cost of distribution. There may be some exaggeration in this statement, but it highlights the fact that modern marketing is a very costly affair. Even then it is an unavoidable aspect of the present competitive economy.

Despite the increasing use of market research, the analysis of profit opportunities continues to be a highly neglected aspect of the present enterprise. Too often, a promoter enters a field merely because of a predilection for that field, or any one of a number of equally poor reasons. Such are the origins of many businesses which are launched every year with scarcely a chance for survival and which sooner or later sink into bankruptcy. However, such misjudgements are not limited to the formation of new enterprises. It is not unknown about established firms to undertake expansion without adequate preparation. Such mismanagement results in social and economic losses which quite possibly could be prevented by previous market analyses. Therefore, when management is contemplating construction, expansion, or a change in sales policy, it should resort to market research concerning such a move. When establishing a new firm, its prospective products should be analysed to determine probable sales volume, rate of profit and its duration, capital cost, amount and cost of necessary advertising, production costs, stability of raw-material supply, business conditions and trends, transportation expenses, seasonal market characteristics and such other
factors which might be considered relative to the success of the business. Similarly, before production is increased, one should study many of the above factors as well as such considerations which affect the volume of sale in the market. Further, the use of market research should also be made by the sales department in laying out sales districts, choosing sales outlets, improving public relations and determining the extent of advertising needed, the best location for district offices and the number of sales to operate from each and the probable effect of price changes.

In a 'sellers' market, generally the manufacturer can sell his products without much difficulty. But even in conditions of sellers market there is a place for marketing research since there will be a number of competing products seizing the attention and patronage of the customer. On the other hand, under the conditions of 'buyers' market, the quality of the product is the main concern and the same cannot be improved without adequate market informations. Hence, it is apparent that whatever the condition of the market, buyers' or sellers', marketing research is indispensable. Apart from this, for taking major
decisions regarding new products or changing the design of old products to suit the market conditions, future sales and selecting a particular way of distribution of goods, a thorough knowledge of the attitudes of the potential buyers, competitive trends in the market, methods and techniques of distribution, demand and supply conditions is required. In short, factual informations are needed by the manufacturers for the purpose of formation of policies and planning production and distribution of goods and for studying the possibilities of new techniques, new processes and their application in improving the quality and design of industrial and consumer goods, reducing the cost and attracting the existing and potential customers.

From the foregoing discussion, it is obvious that in the present competitive world of science and technology the development of industries on the right lines is hardly possible without conducting marketing research as it gives informations on key factors relating to problems, prospects, availability of input requirements, techno-economic feasibility of undertaking productions etc. Hence, the need of marketing research is imperative for accelerating the pace of development of large as well small scale industries on sound lines.
TYPES OF MARKETING RESEARCH:

There are mainly two types of marketing research to solve the business problem: one is internal research and the other is external research. Internal research makes use of the mass of data available with the firm about its past sales, price variations, results of any previous market research reports, etc., about products and their markets. External research is mainly concerned with the field-work by conducting market surveys and studies. External research is, therefore, always costly as compared to the internal research. Although external marketing research is conducted by the industrial units at different occasions for different purposes to solve various complex business problems but the following three main divisions of external research are important. They are (a) Product research, (b) Sales research, and (c) Consumer research. Besides, there are other aspects like wholesale and retail distribution analysis, quantitative market analysis, attitude and opinion research, advertising and sales promotion research, brand position analysis, value analysis etc. All these are not mutually exclusive. They are all complementary to one another and it is for the organisers of the market research to determine what parti-
cular aspects are to be covered under the market research keeping in view the objectives of the sponsors of the project. The three main divisions of external market research are discussed below at some length:

**MAIN DIVISIONS OF EXTERNAL MARKET RESEARCH:**

**PRODUCT RESEARCH:**

Product research is intended to find out by field-work the design of a new product contemplated, its size, its price, its probable appeal to the consumers, its position vis-a-vis other competing products, etc. Product research is also necessary for improving and changing the design or quality or utility of an existing product so as to make it more appealing to the consumers. So, whenever any major decision regarding a new product or changing the design or content of an old product to suit prevailing market requirements is to be undertaken, product research is a necessity.

**SALES RESEARCH:**

Sales research (or analysis) is needed when a product has been put into the market and when it is being stocked by many wholesalers and retailers in the important towns in the region or in the country
as a whole. Sales research will tell the manufacturer how many of the units sold by him over a certain period of time have actually been bought by shopkeepers and how many are in the retailers' or wholesalers' stock-rooms. Sales research is also required for making a realistic estimate of future sales, which is often called sales forecasting. Sales research will also enable the manufacturer to know how many shops stock the product and, how many do not, whether the product is stocked by more than one kind of shop, or it is distributed evenly over a market and between one region and another, etc.

In a nutshell, it provides basic data for appraising the profitability of current and past operations, and for planning future activities.

CONSUMER RESEARCH:

The consumer is the final arbiter of the ultimate success of the manufacturer. Studies of customer buying practices and attitudes serve as an important guide in planning effective industrial marketing programmes. The peculiar taste of the consumer, his attitude to a particular product, the frequency of his purchase, his tendency to change over the other competing brands of the product consequent upon
some change in the price, in the packaging, appearance, etc. are to be covered by consumer research. The manufacturer should always know the needs, tastes and behaviour of the ultimate consumers of his products.

Very often, wrong ideas on this point, lead to loss of sales. Only consumer research can provide the answer to this and many other similar questions. It can provide the manufacturer with a complete picture of his customer with regard to his age group, social status, sex, size of the town where he lives and other related characteristics. Consumer research will also inform the manufacturer as to what are the buying habits of the public in respect of his goods, when and where they buy them and the use which is made of them. It will also help him to find out why some people buy a particular product and not a competing one, whether they will continue to do so or think of the product. It is interesting to mention here that when Nescafe Coffee was introduced in the United Kingdom, there was a concealed reluctance on the part of the housewives to purchase Nescafe Coffee even though its superior qualities were well known. A research was conducted by experienced field-staff by interviewing some of the housewives. It was revealed that their reluctance was mainly due to a feeling that those who bought Nescafe would be dubbed
as lazy housewives who did not want to take the trouble of preparing coffee in the traditional manner.

It is clear from the above discussion that market research is essential for every business unit big or small. But the need of marketing research is greater in small scale industries. Limited as its resources are, a small enterprise cannot afford to spend large sums of money on market research for its products. Keeping in view the importance of market research in small scale industrial sector a programme of marketing assistance through some kind of market research included in the small industries programme was launched by the Government of India in 1953-54 as one of the recommendations of the International Planning Team sponsored by the Ford Foundation Team which visited India in 1953-54, was the establishment of a body or corporation for rendering marketing assistance to small industrialists. It was with this end that the National Small Industries Corporation was established by the Government of India.

The National Small Industries Corporation rendered marketing assistance to small


2. Ibid.
industrialists through opening of depots for selling their products and also through the operation of mobile sales vans. These sales vans carried the products of small industrialists to important marketing centres in the region and sold them. At the time of the sale, trained researchers, who accompanied the mobile vans, conducted consumer research. These trained researchers kept a watch on all those who went to the mobile vans for the purpose of purchasing. These researchers elicited a good deal of information from the customers through informal conversation with them. They tried to find out why a customer purchased from their sales depot or van a particular product, what was his idea about its price, quality, whether he had knowledge of other competing products, packaging, etc. If the customer did not purchase the product, they tried to ascertain from him why he did not purchase; whether it was due to high price, unattractive packing, poor quality of the product or any other reason. Based on such a survey, a report was prepared by them in which their findings were recorded. These reports were considered helpful to the manufacturers as they contained suggestions useful to them.
The sales van operations were discontinued as they did not prove very successful and they were costly compared to their utility. The functions of the National Small Industries Corporation relating to consumer research were therefore taken over by the Economic Investigation Division attached to the Regional Small Industries Service Institutes at Madras, Delhi, Calcutta and Bombay. Since, then, another type of market research known as Distribution Aid surveys was introduced. These Distribution Aid Surveys are conducted by the Corporation at the request of small industrialists who have marketing problems for a particular product which exists in the market.

As stated earlier, these Distribution Aid Surveys are done on regional basis. A decision to undertake Distribution Aid Surveys for a product is finally taken only after necessary approval from the Development Commissioner, Small Scale Industries, New Delhi. After approval the small industrialists for whom the Distribution Aid Survey is undertaken are asked to pay Rs. 250/- and also to send a few samples of the product to be used during the field

survey. These samples are meant to be carried by the field investigators who undertake the field survey at the various commercial centres which they visit, for being shown to the wholesale and retail dealers, individuals or institutional consumers, and other parties who are likely to be interested in the product and who are in a position to give proper opinions on the quality of the product, its price etc. The investigators during the field-study try to get the reactions of various people to the product with particular reference to its quality, price, competitive strength, packaging and other related matters vis-a-vis similar products available in the market. They also try to get an idea of the estimated sales of the product under survey in each centre and the approximate increase in the future demand or sales. They also contact the manufacturer for whom the Distribution Aid Survey is undertaken and discuss with him the specific problems relating to the sales of the product. They also invariably visit almost all the other manufacturing units in the region producing the same product.

After the completion of the field-work, the data collected are tabulated and the Distribution Aid Survey
report is drafted. These reports are brief, covering 10 to 15 pages. They contain valuable information on the size of the market, general reactions of the dealers and other knowledgeable persons to the quality, price competitive strength, etc. of the product besides giving specific recommendations or suggestions to the manufacturer to streamline the distribution channels for his product and to adopt better methods of selling based on their observations in the selected markets.

So far, more than 250 Distribution Aid Surveys have been conducted by the four Small Industries Service Institutes at Madras, Bombay, Delhi and Calcutta and reports thereon have been prepared. The Small Industries Service Institute, Madras, alone has prepared about 75 Distribution Aid Survey reports.

Thus, the Government of India through its facilitating institutions is providing marketing assistance to the small scale industries throughout the country. But, as a result of this only a few selected small scale industries are competing with large scale industries in the production of similar items not only in the domestic market but also in the

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foreign markets. This indicates that the marketing assistance and facilities provided by the government to the small scale industries are inadequate and do not satisfy the requirements of these units.

Apart from Product research, Sales research, and Consumer research, Value analysis also an important aspect of modern marketing research which has been discussed below at some length:

VALUE ANALYSIS:

Value analysis is a new concept to the modern industrial world. This technique was first developed in the General Electric Company in the United States of America for the purpose of cost reduction. During World War II, it resulted in considerable economies in the expenditure on American defence supplies and since then more and more undertakings are systematically applying this technique with encouraging results. In our country, too, the technique is being widely used for achieving economy in cost of production.

Generally the term Value Analysis is considered analogous to Price Analysis or Cost Analysis, although it is not so. As a matter of fact value of an

item is measured in terms of its function or purpose and, hence, it differs from price or cost of a product. It may be expressed briefly as:

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\text{Value} = \frac{\text{Utility of the item}}{\text{Actual price paid for the item}}
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It may be increased by reducing the price, by increasing the functional utility of a particular product or both. It is applied for assessing the value of an item and then enhancing it properly or systematically. In other words, value is the combination of various attributes of a product such as its size, shape, colour, price, quantity and service that gives more satisfaction to the consumers. Analysis on the other hand, is a technique which systematically helps to determine the above combination of attributes of a product. And, it aims at the greatest value in return for money spent. It involves a continuous supervision of value at all stages such as designing, purchasing, manufacturing, packaging, transporting and selling. In short, value analysis deals with the design, function and cost of a product (material or service) with a view to reducing its cost. This reduction of cost of a product may be obtained by changing the design, creating a substitute performing
the same function or purpose, and by adopting cheaper manufacturing process. In this way, "value analysis starts with an examination of the functional utility or end-use of an item and whether its price is not too high for the function it is required to perform and then it proceeds to investigate what else will perform the same function at a lower cost". Functional utility or end-use of an item constitutes three main aspects as indicated below:

(1) The primary aspect is generally considered more important and about 50 per cent or more price is paid by the consumers for it. For instance, we want to purchase an Iron Almirah for keeping business secret papers. The primary consideration in this case is the quality of material that serves our purpose. Hence, we will prefer an Almirah of good quality. This is the primary aspect of the end-use.

(2) The secondary aspect may be of its colour, size, design etc., and

(3) The tertiary aspect may be its good manufacturing.

Apart from this, value analysis also takes into account another important aspect of suitable substitutes which might be available at lesser cost. A good example of this is that of Vanaspati Ghee manufacturers in India who have changed the tin container into plastic container by eliminating unnecessary costs without changing the functional value of the product. Some other major considerations for the determination of value are as under:

(a) Functional utility or end-use or purpose of the item.

(b) Overall or ultimate objectives or benefits, i.e. benefits to an organisation, industry or to a community.

(c) Value in terms other than economic considerations, such as appearance, or decorative, artistic, prestige or sentimental value.

(d) Value in terms of the time element, i.e. whether the item is required for a specific event or at a particular time or period of time.

Thus, value analysis is a technique used for achieving economy with efficiency and promoting the use of cheaper and more easily available materials for a particular purpose or end-use.
APPLICATION OF VALUE ANALYSIS TECHNIQUE:

While applying this technique one should ask himself the following questions about each product which he is manufacturing in order to achieve the very purpose of the technique. They are:

1. Does it contribute value?
2. Is the cost proportionate to its utility?
3. Does it need all the specified features?
4. Is there anything better or cheaper which would serve the purpose?
5. How much would that cost?
6. Can a usable part be made by a cheaper method?
7. Considering the quantities used has it been made on proper tooling?
8. Can a standard product be used?
9. Do materials, reasonable labour, overheads and profits total up to its cost?
10. Will another supplier provide it for use?
11. Is anyone burning it for less?

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Instead of all these valuable questions, for achieving the best possible results, it should also be kept in mind that the above technique is based on comparison of two or more items performing the same function. In the case there exist different samples of an item reasonably priced and of good quality, a thorough examination of attributes of each sample should be taken into consideration for comparison. This will help to select the best sample. This method of comparison is often called as ranking method or matrix-system. The basic principle of this system is comparing the samples in pairs.

From the above discussion, it is revealed that value analysis technique can be applied universally wherever economies are possible. Obviously, it should be applied to products where maximum economies can be achieved. For taking up value analysis work for the different items decision should be taken by the management on priority basis. It should also be borne in mind that even if there is no economy on any particular item, it should not be forgotten altogether. The item should be taken up for value analysis after six months or a year as market conditions do not remain static, therefore, it may result in economies after some time.
Hence, value analysis is a technique which, if employed systematically, can achieve great economies and efficiency. It may be summarised under the following heads:

(a) **Elimination**: Can we eliminate the item, or not?
(b) **Keep**: When we cannot eliminate the item, we must try to reduce the cost to achieve better results.
(c) **Change**: Change is necessary when an item or method or process cannot be eliminated.
(d) **Modification**: The cost can be reduced by making modification in the design, specification, size, shape, method of manufacture, or analysis.
(e) **Incorporation**: By combining two or more operations or parts, the cost of an item can be reduced.
(f) **Subdivision**: If a particular product is too difficult to make can be manufactured in parts, or components and then they can be assembled together.
(g) **Substitute**: Complete substitution can be effected for bringing down cost.

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In this way, value analysis technique serves various useful purposes of product development and cost reduction.

After having discussed the meaning and definition of the word 'Market Research' its importance and types, we will now discuss at some length as to how market research is undertaken.

UNDERTAKING MARKET RESEARCH:

A well-organised research project should begin with a verification of the purpose and scope of proposed study. Both the person ordering the survey and the person responsible for conducting it should know exactly what is desired. After the researcher is satisfied that he has the correct concept of the problem, he is ready to begin the preliminary survey. No extensive field-study should be initiated until a preliminary small scale investigation has been conducted\(^1\). The preliminary survey, though limited in scope, should not be cursory or hasty. It should reflect thoughtful planning and a careful and thorough search for evidence or facts pertaining to the market situation. Once the analyst knows where his possible

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\(^1\) Generally, one finds sufficient information in his own units records and from reports of other research projects to eliminate the need for any additional information. The proper utilisation of available information should not be neglected.
sources of data lie, he can develop sound methods for obtaining the most significant and pertinent information at the least expense. Since a preliminary survey is the foundation around which a latter and more extensive study may be built, it should be conducted only by an alert and experienced investigator who can lay plans for future operations efficiently.

Sometimes a preliminary survey provides sufficient evidence that there is not a profitable market for the product, and consequently further investigation in that field should not be undertaken. It also might indicate an impossibility to obtain sufficient information, which again would suggest suspension of survey operations or modification of the approach. Therefore, in addition to serving as a guide for more complete operations, the preliminary survey makes possible prevention of useless studies which might involve tremendous expense.

Along with the preliminary investigation comes the problem of creating a suitable questionnaire. For the best results a questionnaire should be prepared and tested for any weakness in scope or construction. Questions thus framed should be clear and contain only one idea. They should be worded courteously and should not touch on matters which generally are consi-
dered personal, especially if the respondent is requested to affix his name to the form. The questions should not force a respondent to rely on his memory to a great extent, since guessing is liable to ensue "yes" or "no". Questions should contain also a space for "don't know", "don't care", or "indifferent" so that the responses may be representative. Above all, no question should be so worded as to suggest an answer by itself.

A friendly covering letter is often used and it serves a valuable supplement to a questionnaire. Such a letter can cultivate the recipient's personal interest in the survey by giving a brief description of the project and its purpose and by emphasising possible benefits to the consumer. Further, cooperation can be obtained by using the covering letter to offer a premium or reward to the respondent, to promise him a copy of the results of the survey, or merely to appeal to him for help.

Selection of media for the purpose of collection of data is also generally considered as the most exhausting and frustrating part of the market research programme. It involves one or more of a number of different methods. A mail questionnaire can be used to obtain information from all parts of a large
Although the mail questionnaire provides a relatively inexpensive means of contacting a large number of people who may be widely scattered geographically, it has several inherent weaknesses which limit its utility. The response to a mail questionnaire may be very low in relation to the initial mailing, and one must realise that those who do respond may have particular reasons for doing so. Since the respondent group may not be a representative sample of the initial mailing list, this sampling technique is quite likely to produce unrepresentative data. Furthermore, the analyst has little opportunity to check the validity of the answers submitted, for he is not present when the questionnaire is filled in and he usually does not converse with the respondents. This problem sometimes can be extenuated by designing the questionnaire in a manner which will illuminate inconsistencies in the responses to various questions. But, the analyst is still unable to rephrase questions or elicit additional information from any one respondent.

A second method of contact is by telephoning. The analyst who conducts his survey by telephone may be in a good position to establish harmony between himself and the person being contacted. He can present a flexible questioning programme and induce individual informants to append information to the desired basic
answers. He is also able to clarify the meaning of any question which might prove bothersome for a particular respondent. On the other hand, the telephone survey is more expensive to conduct per respondent than a mail questionnaire survey, though this may be offset by the more valuable information obtained through this medium.

A third method of contact is through personal interviews on the street, in the place of business, or at the home. As might be expected, this method is the most expensive per person contacted. It requires specially-trained interviewers and much time may be spent in interviewing and travelling. However, the acute observer can recognise inconsistencies and even probable false answers by scrutinising the respondent and his surroundings. Through this method, a good interviewer, through proper guidance of subsequent conversation, can unoffensively afford the individual the opportunity to reconcile his statement with the evidence. Although interviews are much more difficult to tabulate than are questionnaires, they allow the respondent to express himself freely and may provide additional data of value to the analyst.
SOURCES FOR COLLECTION OF DATA:

Sources for primary data, or data which are unrecorded, include consumers, jobbers, and retailers. Consumers who may be interviewed include former customers, to find out why they stopped buying; present customers, to keep informed as to performance or use of the product; and customers of competing concerns, to discover their reasons for preferring a competitor's goods. The retailer occupies a key position in the marketing system. Therefore, he can usually provide a great deal of valuable data, such as buying habits of consumers, brand preference, acceptance, recognition, and sales volume. Although much of the jobber's information is considered confidential and is not available, that which is available may be helpful in depicting consumption according to territories or districts.

In addition to primary data the investigator can usually find a considerable amount of secondary data.

Several readily available, excellent sources of secondary information are at the disposal of a marketing research man. But generally, secondary data are found in business records, government reports, and

trade publications. Market research institutions are available to conduct such studies, though many firms have found it expedient to employ their own market research specialists. Quite often, advertising agencies assist clients in market investigations as a special service. Of course, trade associations (especially the American Marketing Association), universities, local chambers of commerce, numerous periodicals, and such federal agencies as the U.S. Department of Commerce and the Small Business Administration, can prove extremely helpful in market research studies.

After explaining the procedure of undertaking market research it now seems worthwhile to discuss as to how marketing research serves as an aid to product Development Programme in the small scale industrial sector.

MARKET RESEARCH AS AN AID TO PRODUCT DEVELOPMENT PROGRAMME:

As discussed earlier, the need for market research is basic for the development of an industrial enterprise, irrespective of its size - be it large scale or small scale - in this industrial age as it provides data in a concise form and offers guidance to the perspective entrepreneurs in choosing their particular lines of production and distribution. It is not only helpful in
selecting lines of operation which are most suitable but also in determining the priorities of development and suggesting ways and means for accelerating the sound growth of an industrial unit.

At the initial stage, market research guides the manufacturers in the correct formulation and effective implementation of a product development programme and in making right investment decisions by supplying informations regarding availability of raw-material, capital, and critical skill and facilities of transportation and other related factors. At the establishment stage, it provides various useful informations pertaining to demand and supply, market characteristics, competitive trends, likes and dislikes of the potential buyers etc. And, finally at the developmental stage, it supplies factual informations for studying the possibilities of new techniques, new processes and their application in improving quality and design of industrial and consumer products, reducing the cost entailed in increasing the attractiveness of products among the existing and potential buyers. Hence, market research is essential for product development programme. But, it cannot by itself solve a firm's business problem. What it can do is to narrow the field of uncertainty in which the particular business problems are set and,
thereby, facilitate effective decision making. This underlines the need of a comprehensive product development programme.

As discussed earlier, a product development programme in production studies that before the actual process of production is undertaken, a manufacturer must take into consideration the objective of consumer satisfaction as his ultimate goal, which requires a systematic study of the consumption patterns of the consumers. Secondly, for the purpose of laying solid foundation for the growth of business and for reducing the risk of loss, available means should also be properly investigated and analysed. Thirdly, it is also necessary to study as to how much emphasis would be laid on innovation and developmental efforts. Finally, he must also view as to what type of organisation is to be adopted. Just as in production, in distribution also product development programme studies whether the market does exist for a particular product and if it does not whether it is possible to create a market for the product, what techniques and methods for marketing the goods are to be adopted and various other important aspects of marketing of goods. In other words, while undertaking actual process of production and distri-
bution of goods, product analysis, market analysis, consumer analysis and value analysis should be made by the manufacturer from the point of view of successful running of a business unit.

Hence, the effective role played by the Marketing Research in the successful implementation of a Product Development Programme can hardly be over-emphasised.

CONCLUSION:

It emerges from the above discussion that product development programme occupies an important place in the modern industrial set up from the point of view of successful running of an industrial enterprise. Although it has made some headway during the last few years, the momentum is slow considering the pace of progress of small scale industrial sector. As a matter of fact, both market research and product development are inter-related. But market research, if separately applied, cannot give fruitful results as it requires a comprehensive product development programme which can make an effective use of the informations provided by it. Similarly, a product development programme cannot be effectively formulated and implemented in the absence of market research as it requires intensive investigations and inquiries for the purpose of
formulation of policies and planning the production and distribution of goods. In a nutshell, effective planning of productive and distributive activities can only be done if adequate related informations can be had at hand.

Thus, market research by providing such informations as actions and reactions of the consumers to the product, the extent of the competition, the distribution practices and sales techniques of the different manufacturers existing in the market works as an aid to product development programme. Although, various techniques of product development programme are now increasingly been employed in large as well as small scale industries, the market research as an aid to product development programme has not yet been laid any stress. Market research should, therefore, form an integrated aspect of the whole process of product development. As product development programme is a costly and time-consuming affair, it cannot be easily undertaken by the small scale industries on large scale and comprehensive basis. Hence, a typical "need-based" design of product development for small scale industries is called for. This aspect of the problem forms the subject-matter of the next chapter.