Chapter III
Product Development Programme as a Growth Stimulant for Small Scale Industries
CHAPTER III

PRODUCT DEVELOPMENT PROGRAMME AS A GROWTH STIMULANT FOR SMALL SCALE INDUSTRIES

INTRODUCTION:

In the previous chapter, the factors affecting the sound development of small scale industries have been discussed. The conclusion drawn from our analysis is that there are various factors such as shortage of finance, inadequate supply of raw-material, lack of technical know-how, managerial skill which are hampering their sound growth. Although the effect of these factors cannot be under-rated, lack of product development programme is exerting profound influence on the sound development of these industries despite the fact that they are receiving much patronage from the Government. It is in this context that the present chapter has been devoted to analyse the role of Product Development Programme in the speedy development of small scale industries in the country.

PRODUCT DEVELOPMENT-DEFINED:

Whether or not a firm is successful depends as much on its products as upon any other factor. If a firm's product line is obsolete, sales will be low. If the line is too narrow, seasonality may be a problem;
and if the line is too broad, the firm may not be able to produce and sell any one of its products efficiently. If a product has too many frills on it, production costs may exceed the price the consumers are willing to pay; and if a product is too plain there may be little demand for it in spite of low production cost. Hence, the selection and initiation of products or services is by no means a simple matter. For the purpose a firm must establish policies whether it will produce high or low quality items or a line with both, whether it will strive to lead the industry to develop new designs or let its competitors set the pace, how price will be established and how they will be related to quality, who will pay delivery, service, and repair costs, and a myriad of other policies. The term "Product Development" dealing with all such matters renders useful services to small manufacturers. In production it studies 'what to produce, how to produce, where to produce, how much and when to produce, for whom to produce, and what should be the quality, size, shape, and standard of the product and what techniques of production should be adopted to improve the quality of existing product etc.' in order to make the product market-oriented. Unlike production,
in distribution it studies such considerations as how to sell, where to sell, when to sell, how much to sell, whom to sell and what are their likes and dislikes, their residential conditions, their social, economic and religious barriers etc. and what methods and techniques of distribution of goods should be adopted and various other important marketing functions.

In short, product development programme actually deals with the introduction of a new product or a new brand into the market and brings it in the circle of actual competition or pushes it into the existing market. In other words, it focusses attention on those forces which operate in popularising a new product or brand in the market. It may be defined as a conscious and well-planned effort to improve present product or add to the variety of products produced and marketed.

The above analysis suggests that product development programme deals with two major aspects, the production or manufacturing and the marketing or distribution aspects of a business unit.

ELEMENTS OF PRODUCT DEVELOPMENT PROGRAMME:

The term Product Development Programme can be broadly classified in the following manner:

(a) Product Development Policy;
(b) Product Development Planning;
(c) Testing Product features, performances and stability;
(d) Distribution channels.

These elements of product development programme are discussed below at some length:

(a) **PRODUCT DEVELOPMENT POLICY**:

Product development policy serves as a guide in determining the classes of products or what specific items shall be manufactured or handled. Apart from this, product development policy is also concerned with a variety of additional matters such as quality, design, improvement in packaging and branding and marketing of goods in different market conditions. Therefore, the first concern of a business unit is the content of its product line. The term "Product" in this discussion means an end-product offered for sale by the firm and product line is used here in a broad sense to include all the products manufactured by the firm. The term product line can also be used in a narrower sense to refer to groups of products that are related either on the marketing side as being made from the same materials or by similar
processes. For this purpose business executives make decisions almost every day that affect the product line in such matters as allocations of manpower, factory space, or sales effort. They frequently decide whether to undertake a new development project, to introduce a new product, or to eliminate an old one. Mistakes in any of these are usually costly, and may even be ruinous. For taking better and faster decisions on problems of product line content, formal product policies are formulated. A product policy serves the following three main functions.

(i) It helps to provide the information required for decisions on the product line. It tells lower management and professional staff the objective of top-management. Further, it provides a convenient framework around which this information can be organised.

(ii) It gives to the executives a supplementary check on the usual estimates of profit and loss and,

(iii) Finally, a product policy guides and directs the activities of the whole organisation towards a single goal.


A sound product policy, well-prepared and well-taught to all the professionals and supervisory staff is, therefore, an important tool for coordination and direction. The need for coordination is felt because the product policy differs from unit to unit depending upon its strength and unique character. Every business unit is unique in the sense that it has certain strength and certain weaknesses that distinguish it from other business organisation. In practice the differences between enterprises are never so simple and pronounced as to force them to have an identical product development policy. As a result, the policies are found different in different business undertakings. But, whatever policy is adopted it must be reduced to written form if executives and employees are to use it throughout the organisation. A product policy is especially helpful as a supplement and check on the usual estimates or profitability in three types of product activity: (a) development of new products; (b) vertical integration in manufacturing; and (c) elimination of old products. Therefore, an ideal product policy is that which makes the best use of a unit's strong points and avoids its weak points. It is one of the most important responsibilities of the top management. While formulating the policy, they should be
assisted by those who devote their attention to the job of product development and product planning. For this purpose it is also essential to make a careful study of the inventory of the available resources as mentioned in the table given below:

**TABLE NO. VI**

**SHOWING INVENTORY OF AVAILABLE RESOURCES**

<table>
<thead>
<tr>
<th>(1) Financial strength</th>
<th>Money available or obtainable for financing research and development, plant construction, inventory, receivables, working capital and operating losses in the early stages of a commercial operation.</th>
</tr>
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<tr>
<td>(2) Raw-material reserves</td>
<td>Ownership of, or preferential access to, natural resources such as minerals and ores, natural gas, forests etc.</td>
</tr>
<tr>
<td>(3) Location and situation</td>
<td>Situation of plant or other physical facilities with relation to markets, raw-materials or utilities.</td>
</tr>
<tr>
<td>(4) Physical plant</td>
<td>Manufacturing plant, research and testing facilities, warehouses, branch offices, trucks, tankers etc.</td>
</tr>
<tr>
<td>(5) Specialised experience</td>
<td>Unique or uncommon knowledge of manufacturing, distribution, scientific fields, or managerial techniques.</td>
</tr>
<tr>
<td>(6) Personnel</td>
<td>Payroll of skilled labour, salesmen, engineers, or other workers with definite specialised abilities.</td>
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Contd.
From the above table it is clear that inventories are as essential to the smooth operation of a factory as are plant and equipment or transport facilities. An efficient inventory indicates good forecasting, production planning and scheduling, manufacturing and good purchasing - all of which lead to lower costs. Inventories also make it possible for industry to stabilise employment and increase the utilisation of skilled workers. Inventory control on the other hand is a planned method of determining what to indent, when to indent, how much to indent and how much to stock so that purchasing, storing and inventory carrying costs are the lowest possible without affecting production and sales. They comprise raw-materials, general stores (or supplies), machinery, spare parts, components,
purchased or manufactured for stock, work-in-progress and finished goods.

Thus, the principles of inventory control determine when to buy or replemish, how much to buy and how much to stock so that the flow of materials to the using departments is kept uniform and regular at the least overall cost.

(b) PRODUCT DEVELOPMENT PLANNING:

During the period of prosperity when industrial goods are in demand, a manufacturer tends to neglect thinking of the future\(^1\). When he receives more orders then he concentrates towards the problems of production, but when the cycle reverses and he awakens to the fact that orders are no longer running his industry to capacity, he turns his attention to the cultivation of old customers and the development of new ones. By that time, however, he may be too late. The efficient manufacturers do not wait for a period of recession or depression before taking corrective action. Through a combination of marketing research and product planning he is in touch with the market, and he has planned his product line so as to meet the requirements of his

\(^1\) The study is based on personal interviews with the small producers.
customers and thereby maintains higher level of manufacturing activity. Product planning is, therefore, essential for the long-run success of the business and must be carried out regardless of whether a buyer's market exists or a seller's market exists. In short, product development planning is mainly concerned with the making of major decisions, such as what and how much is to be produced, how, when and where it is to be produced, to whom it is to be allocated, by the conscious decision of a determinate authority, on the basis of comprehensive survey of the production system as a whole. It embraces all activities which enable producers to determine what should constitute a firm's line of products. Ideally, product planning should ensure that the full complement of a firm's products are locally related, individually justifiable and designed to strengthen its competitive and profit position. It requires an estimate of the industry's market potential, sales potential, cost requirements, and the profit possibilities of product to determine whether product development is feasible. Product Development being a more limited term encompasses the technical activities of product research, engineering, and design. It includes such activities as decision-making and programming in the following areas:
(a) Which products should the firm make and which should it buy?

(b) Should the firm expand or simplify its product line?

(c) What new uses are there for each item?

(d) Is the quality right for the intended use and the market?

(e) What brand, package, and label should be used for each product?

(f) How should the product be styled and designed, and in what sizes, colours, and materials should it be produced?

(g) In what quantities should each item be produced and what inventory controls should be established?

(h) How should the product be priced?

(i) Selection of channels of distribution; and

(j) Advertising media to be adopted.

Thus, broadly speaking, "product Development Planning" includes the following functions:

Determinaton of variety of products to be produced:

Determination of variety of products before undertaking the actual process of production is an important factor for the success of an enterprise. It is, therefore, necessary for a manufacturer to decide first of all whether he should produce to satisfy the demands for all
variety of products existing in the market or he should attempt to meet demands of a limited variety of products only or he should specialise in a particular type of product. The answer to this question will determine the variety of sizes, of colours and of patterns to be followed. Generally, all products are classified into two groups —Consumer goods and Producer goods also known as Industrial goods. Consumer goods include all products which are "destined for use by ultimate consumer or households and in such forms as can be used without (further) commercial processing. Industrial products on the other hand are those which are destined to be sold primarily for use in producing other goods or rendering services as contrast with goods destined to be sold primarily to the ultimate consumer". One more group of product is the combination of the above two. In other words, a product which is purchased for non-business use as well as for business use for example Type writers.

Decision regarding quality of product:

The next important aspect of product planning and development is whether to offer more than one quality of products. Quite a large number of manufacturers prefer to restrict their offer to a single quality. This quality has three aspects namely high quality for high income groups, average quality or market quality designed to sell at a standard market price and less than average quality meant for sale at a price below the general market level with a view to covering the low income group. The choice of one or the other of the three qualities mentioned above depend upon, among other factors, market conditions and the objectives and available resources of the particular manufacturer. Decision about quality of the product to be produced and marketed is, therefore, essential as it minimises the chances of failure of a business.

Diversification of Product Line:

Product line composition is a major facet of modern competition, and a firm's achievements in new and improved products are an important test of its social contribution. A broad group of products, intended for essentially similar uses and processing reasonably similar physical characteristics, constitutes a product line. In recent time,
producers tend to favour the practice of diversification of their product line which refers to the practice followed by a producer to add new product to the line of products presently handled by him. For instance, a producer of Radio sets adds Television sets to his product line.

**Simplification of Product Line:**

Notwithstanding the above mentioned tendency towards diversification producers follow the practice of simplification of product line as well. Simplification of product line is just opposite to diversification. It refers to the practice of limiting the number of products the producer is dealing with. In other words, such a practice followed by a producer leads to specialisation in a certain type of products.

**Identification:**

Identification of product is done by a manufacturer through brands or trade marks. The word brand is a comprehensive term which includes, brand names, designs, and symbol. A brand is defined as "name" term, symbol or design or a combination of them which is intended to identify the goods of one seller or group of sellers.
and to differentiate them from those of competitors"¹. Selecting a good brand name is one of the most difficult tasks facing marketing management of today. In spite of an acknowledged importance of a brand name, it is surprising how few really good brand names are there. In a study made several years before, it was found that only 12 per cent of the names helped in selling the product; 36 per cent actually hurt sales, and 52 per cent were "non-entities" - contributing nothing to the sales appeal of the product². There is no denying the fact that a good brand should possess as many of the characteristics noted below as possible:

A good brand should suggest something about a product's benefits - its use, characteristics, quality, and action. It should be sufficiently versatile to be applicable to new products which may be added to the product line and should be capable of being registered and protected legally under the existing Act and other Statutory or Common law. A trade mark is a part of


the brand which takes the form of a symbol, design or distinctive colouring or lettering. The main objectives of identification are as follows:

(1) To give recognition to the product,
(2) To create preference for the products in the minds of the purchasers.
(3) To fix such an image about the product in the minds of the purchasers that a belief is created that no other product can be substituted for a particular product in meeting their requirements.

**Grading:**

Grading means the act of separating or sorting out the goods according to the established standards based on weight, size, strength, ripeness, soundness, taste, chemical contents, colour appearance and other characteristics of the product. Grading involves inspection to ascertain the qualities of the product. It facilitates the sales, and the buyer's task is also considerably reduced as the element of risk present in purchasing is very much lessened. Other marketing functions such as transportation and storage, are rendered easier and cheaper. This is reflected in the invariable improvement in prices. The increased prices would generally (according to experience elsewhere) more than compensate the sellers for the extra expen-
diture incurred. As compared with the cost of its performance, probably, no other marketing function enhances the value of commodities. On the whole, grading according to definite standards decreases the total marketing costs, and means higher prices to the producers and often lower prices to the consumers. Moreover, with the growth of industrialisation and competition, the machinery is becoming more and more specialised and sensitive, necessitating the adoption of very regular and uniform grades for the supplies of primary products.

Packaging and packing:

Packaging can be used effectively to help introduce a new product or to help increase or maintain the market for existing products. Packing means wrapping and containing of goods before they are transported or stored. Many goods are packed in order to preserve or to deliver to the buyers. Liquids are placed in barrels, bottles, or cans, bulky goods such as cotton and jute are compressed into bales. Other goods are

1. Orth, Penelope: "Can the Package work harder still?" Printers Ink, May 29, 1964, p.182 (a special issue devoted to new product marketing).
placed in boxes or bags for delivering to the dealers. Packing constitutes a general group of activities which involve designing and producing the container or wrapper for a product. It is useful in the sense that it protects the goods from breakage and other losses and works as a powerful tool of selling the products.

(c) TESTING PRODUCT FEATURES, PERFORMANCES AND STABILITY:

Testing product feature, performances and stability have also been considered an important function of product development programme as it saves the product from failure. The testing of product features, performance and stability from the standpoint of external appearance as well as internal construction has been a factor of major influence in modern product development. It ensures that the article will meet the consumers' need and is of good quality and standard. Obviously, without testing no guarantee about the performance and stability of the product can be given to the buyers. As a result, the goods for which no guarantee is given from the side of the producers are neglected in the market by the consumers. For instance, the Bata Shoes Company dominates in the market over others because of the reason that the company gives a
guarantee of its product. Hence, testing product features, performances and stability are also essential from the point of view of successful and profitable working of an enterprise.

(d) DISTRIBUTION CHANNELS:

To produce goods according to the tastes, fashions habits and consumers' behaviour, cheaper and of good quality, is no doubt important for business success. But, it is not likely to succeed unless it is backed by an aggressive marketing programme. In other words, without selecting proper channels of distribution or making improvements in the distribution system, no business unit can run efficiently and advantageously. The existing system of distribution of goods in small scale industrial sector is unorganised because of variety of reasons as discussed earlier. Apart from this, the small manufacturers take undue advantage from sellers market and feel that whatever is produced will be ultimately consumed and, therefore, they do not lay the much needed stress on marketing techniques. Further, they also believe that if goods are produced in bulk, the country's problem will be solved without considering the elasticity of demand and other market situations. Both these notions seem to stem from one firm belief that goods
should be produced first without market research and proper study of consumer behaviour and then the marketing men will take them to the ultimate consumers. Many firms think of themselves as producing a product for sale to distributors. This means that the marketing function is delegated to an outsider and that the firm becomes dependent upon the integrity and efficiency of the distributing firms. But the distributors who operate in the emerging economies are more speculators than marketing institutions. This policy of delegation often results in disaster. In essence, a producer is not supposed to complete his job until he makes available to the consumers the right product at the right price, at the right time and at the right place.

Similarly, the manufacturers who are having their own sales force are also apt to assume that a sales force can always handle just one more product, regardless of its market, or a product will sell itself or take no effort. As a result, one of the commonest problems in business today is that of the single sales force trying to cover too many markets. For instance, when a single sales force covers two markets, such as consumer market and the industrial market, better results can be obtained by segregating the sales force
into two groups, one for each type of market. It appears that ordinarily in the present policy a salesman cannot be continuously shifting back and forth between different types of buyers without having his effectiveness materially impaired. The buying habits and motives of the two types of purchasers are so different as to involve different mental shifts by the salesman. Under these conditions it would be advantageous for the manufacturers to build entirely new distribution channels for the product.

By the term "Channels of Distribution" here, we mean a fixed and clearly marked route for the physical movement of goods from producers to ultimate consumers. Before selecting a particular means of distribution of goods a distributor should take into account the "nature of goods" as the goods themselves play an important role in determining the methods of distribution and the purpose for which they have been manufactured and to which "specific market" they will appeal more. These points are not only important for selecting a particular way of distribution of goods but are also necessary from the point of view of effective selling.

For the purpose of successful marketing of goods, one of the primary decisions which a small manufacturer has to take is the selection of channels of distribution e.g. whether he will opt direct or indirect distribution as a commodity can be sold to the ultimate consumer both directly through the manufacturer's own sales organisations and indirectly through an independently owned distributor.

Hence, product planning and development strategy requires intensive investigation for taking proper decisions. In other words, an ideal product development planning can be advanced only on the basis of facts and figures. The research programme needed for the purpose may be classified as pure or applied, the distinguishing feature being the motive underlying the study. The delineation is not sufficiently distinct that a particular piece of work can be classified definitely in one category or another. In fact, any project may have the characteristics of more than one of the above types. It is often the case that research which is pure in nature at its inception is carried into the applied area. The transition is usually gradual and the dividing line obscure.

**Pure Research**: Pure research is investigation in the quest of knowledge for the sake of the knowledge itself. It is not concerned with practical problems of
a commercial nature but with such fundamental concepts as the behaviour patterns of human beings. Whether or not pure research eventually will benefit a business unit is not predictable, though the justification for it lies in the long-run developments which it may produce. Because of its unpredictable outcome, much of this type of work is conducted by government agencies, educational institutions, and the very large corporations.

**Applied Research:** Applied research involves the study of some particular problem, the solution of which will provide recognised benefits to an organisation. In applied research one studies such problems as why a particular part often fails when the product is put into normal use, why output is low at a certain work centre, how a new material can be utilised to advantage, why employee turnover is high, or why sales are below the quota for a given district. Every firm must conduct applied research, for every organisation has operational problems of these types.

**INCENTIVES OF PRODUCT DEVELOPMENT:**

The following are the most important incentives of the product development:

**PRODUCTION:** In the case of production the incentive is often the desire to utilise excessive capacity made
available by seasonal or cyclical factors or by anything else that contributes to less-than-capacity use of production facilities. It may come also from the wish to make profitable use of waste products or from an awareness of the high manufacturing cost of the old product. On some occasions it may be wholly accidental, i.e. a research team or a laboratory staff might be exploring one problem and light upon something quite different which leads itself to practical development.

**MARKETING:** The marketing considerations fall into various areas such as the product needs of the consumer, price consideration, distribution channels, advertising, personal selling and purchasing with respect of consumers' needs. The incentives for developing some new product is prompted by many factors. These include complaints, sales returns, all allowances, and the need to eliminate unproductive service calls.

**THE MARKET:** Here the competitive action of rival units or some new or improved product generates the incentives for product development. Thus the practice of the trade often requires the introduction of new models periodically and both new market and new needs lead to opportunities for new products.
METHODS OF PRODUCT DEVELOPMENT:

For the purpose of product development generally the following two methods are adopted by the manufacturers: (a) through production process; and (b) through marketing process. While developing a product through production process, the following points should be taken into consideration by the management of small scale industries:

1. The quality of the product should be high standard.
2. External appearance of the size, shape, colour, finish, texture, dimension and other physical features that appeal to the consumer's sense of beauty, utility or distinction etc. should be considered.
3. Standard size should be maintained.
4. The choice of parts, materials and their arrangement in relation to each other should be so designed as to give the user greater convenience, more economical operation and longer life.
5. Use or application of the product should be considered in designing its external appearance as well as its internal construction features in order to provide greater utilities and usefulness to the users or consumers.
Similarly, while developing a product through marketing process, the following six points should be taken into consideration by the small manufacturers:

(1) The position in which the product is to be offered in the market e.g. whether it is a new product or new brand.

(2) Market analysis which includes competitive analysis, sales policies, distribution methods etc.

(3) Consumer analysis e.g. who are the potential buyers, what are their choices, habits, customs, systems, their social, geographical and economic barriers etc.

(4) Product identification through brand or trade mark.

(5) Availability of financial resources.

(6) Advertising.

CAUSES OF NEW PRODUCT FAILURE:

New products are basic to an industry for its growth and survival. The evolution of new products is not an abstract mystery. The original idea for a new product may occur to an engineer at the laboratory bench, a copy writer in the advertising department, or a salesman in the field. In other words, it is practical business function that can best be described as a management process. About new products it has been experienced even among the
most effectively organised companies in the United States that for about every three products emerging from research and development departments as technical success, there is an average of only one commercial success\(^1\). The principal factor that caused failure is defective production and the other is marketing short-comings. Of them nearly two-third of the causes of failure are marketing short-comings, while all other functions of business combined (production, finance, purchasing etc.) accounted for only one-third. Hence, the failure is not merely accounted for the price of new product though it is an important part of learning process that ultimately leads to success\(^2\). The causes of failure of new product are largely defective planning and development strategy as mentioned below:

\(\text{(a) Product defect: It includes lack of durability, poor design and inadequate quality control.}\)

\(\text{\(\gamma\) Higher costs than anticipated: This sometimes results in smaller sales volume than anticipated.}\)

(3) Lack of Marketing Knowledge: It includes inaccurate quantitative measurements of the market, inability to determine buying motives and habits, misjudgement of what products the market wanted, and failure to provide a sufficiently new and different product\(^1\).

(4) Inadequate Marketing Efforts: Failure to commit the resources needed for intensive marketing effort hurt some firms.

(5) Inadequate Sales Force: Salesmen being insufficiently trained or motivated to do the necessary job.

(6) Weaknesses in Distribution: Some firms fail to select proper trade channels or do a poor job in promoting the product through the wholesalers and retailers.

(7) Competition: Price reduction technique adopted by the competitors undercut the market entry of some new products.

(8) Poor Timing: Some products become technically obsolete between the conception of the idea and the commercialisation of the product.

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It is clear from the above analysis that generally new products fail in the market because the programme for the development of new products is not undertaken properly. There is no denying the fact that if a manufacturer creates a product which is new and response to the consumers' wants and needs, there may be a demand for it with good prospects of profitable sales provided it is based on sound marketing system. Hence, the system of new product development in the small scale industries should be somewhat on the lines suggested below:

PROCEDURE OF NEW PRODUCT DEVELOPMENT:

Every product generally has two dimensions: Technology—the fund of knowledge, technical and otherwise—enabling the product to be economically produced, and markets —to whom and how the product is to be sold—enabling profitable distribution. These two characteristics are inseparable1. An invention is not a new product until it is produced and distributed in a form that people can and will buy. There are varying degrees of product newness in each of the two dimensions. In the technological dimension, the requirements may vary from

no new technical knowledge, machinery or plant, to an entirely new spectrum of technical and production knowledge. Similarly, the marketing requirements also vary from no change in customers, selling, or channels of distribution to a need for developing new customers, new sales force, and new distribution channels. Apart from these two major dimensions of new products, the third one is product evolution or the time it takes to bring a product into existence.

The new product developmental activities are complex and often sizable activity embracing the whole industry. To manage such a complex activity, it is necessary to break it into functions and stages that can be easily managed. The new product process can be broken down into six manageable stages for planning and control in the following manner:

1. Exploration: The research for product ideas to meet industry objectives.
2. Screening: A quick analysis to determine which ideas are pertinent and should be given careful investigation.

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(3) Specifications: The expansion of the idea through creative analysis into a concrete business recommendation including product's features and its programme.

(4) Development: Transforming the idea on paper into a product-in-hand, demonstrable and producible.

(5) Testing: The commercial experiments necessary to verify earlier business judgements.

(6) Commercialisation: Launching the product in full-scale production and sale and committing the industry's reputation and resources to the market.

These above mentioned stages can also be illustrated in the following chart:

**Chart - I**

SHOWING THE STAGES OF NEW PRODUCT EVOLUTION
These stages are called by different names in different industries, and they may be combined or subdivided. However, these stages are most common and followed in one form or the other by the firms for any kind of product.

In examining the management process of new product evolution, emphasis should be laid on the first three stages as they represent ideas or concept. It has also been experienced that most products fail because the idea or its timing was wrong and not because the enterprise lacked the knowledge to develop and commercialise the product. The following points emphasise the importance of the earlier stages of product evolution:

1. In the commercialisation stage, failures occur rarely in well-managed and adequately financed business units because successful units know pretty well how to produce and sell. Such units feel that their failure can usually be traced to an earlier stage and it may reflect weakness in the product concept itself.

2. Failures that occur in the testing stage, although not as expensive as commercialisation failures, are significant in the manpower and money losses incurred. Too many products fail in testing for non-technical
reasons. Many of these problems could have been anticipated before development if the product concept had been evaluated fully at the earlier stages of evolution.

3. As for the development stage, experienced business units in research and development suggest: "our men can develop anything, show me enough sales and enough profit, and we'll spend the necessary time and money to develop it". Most development work, after all, should and does take place within technology largely understood at the outset of the project.

Thus, well organised undertakings by concentrating on these stages determine what should be developed. In the small scale industry, the whole task of new product development may be delegated to one man who uncovers and screens ideas, prepares specifications, co-ordinates development, contracts for test market campaigns, and makes recommendations to the management of the enterprise.

PROCEDURE OF OLD PRODUCT DEVELOPMENT:

From the study of unsatisfactory products or old products it is revealed that generally the small manu-

facturers instead of making improvements in the exist­ing products prefer to drop all such items to prevent their losses. The problem of determining what products should be dropped is, in general, the converse of the problem of selecting products for additions. Further, when a product's profit or sales behaviour is absolutely or relatively unsatisfactory, there are three choices:
(a) improve the present operation and keep the product,
(b) keep on making it but sell it in bulk for others to market;
(c) keep on selling it but buy it from others who can produce it more economically.

Basically this approach to eliminate obsolete items is not only defective but it may also lead to serious consequences as introduction of a new product is not an easy task. Under the circumstances, it would be better to adopt an alternative approach in place of elimination of unsatisfactory products. In the case of existing product the developmental strategy should be based on "improving and revitalising an established product which may be more profitable and less risky than developing and introducing a new one". For

industrial goods, more stress should be laid on redesigning as good product design adds value and for consumer goods, emphasis should be given on packaging and on the use of new materials. For instance, in place of metal buckets, the manufacturers have substituted plastic materials. But, while doing so, care should be given on value analysis, that is, the functional value of the product should remain the same.

Another major product strategy used by several manufacturers is to search for new uses for their products.

Further, a product's position in its life-cycle should also be made a basis for planning the strategy of profitable product exploitation. The small manufacturers generally pay more attention to day-to-day competitive situations and other wide problems, rather than to the opportunities (resulting from trends inherent in its life-cycle) so as to shape advantageously a product's destiny. The term product life-cycle has been defined as the "Duration of time between the development of a product and its eventual withdrawal from the market: incorporating periods of growing, maximum and declining demand".

However, the life-cycle of a product has many points of similarity with the human life-cycle: the product is

born, grows lustily, attains a dynamic maturity, then enters its declining phase. Like human beings a product that has not built up its potential during the formative years is likely to be relatively unsuccessful in its maturity. And just as each of us must manage our financial resources during maturity to take advantage of opportunities or protect ourselves against adversity, similarly an executive who controls the destiny of a product must optimise the use of capital and human resources in the latter stages of the product life-cycle. The concept of product life-cycle has three key elements:

(a) products move through the cycle of introduction, growth, maturity and decline at varying speeds; (b) unit profits increase sharply in the growth phase and start to decline because of competitive pressure during the maturity phase, while volume continues to rise; and (c) the functional emphasis required for successful product exploitation—engineering and research, manufacturing, marketing, and financial control—changes from phase to phase in the cycle as shifts occur in the economies of probability. At the risk of over-simplifying the life-cycle concept, the chart II given below represents a view of the profit margin and sales volume relationships occurring in each phase of the cycle.

GRAPH - 1

SHOWING PROFIT-VOLUME RELATIONSHIP IN THE PRODUCT LIFE-CYCLE

SALES VOLUME AND PROFIT MARGIN

TIME

Introductory Phase  Growth Phase  Maturity Phase  Decline Phase

UNIT PROFIT MARGIN

SALES VOLUME
It appears from the above chart that the losses of the early introductory phase give way to soaring unit profit margin during the growth phase. Profits turn down while volume continues to expand in maturity, and both slump during the decline or obsolescence phase. These profit-volume shifts, in turn, lead to changes in the relative importance of the various functions within the unit from stage-to-stage as discussed below:

**THE INTRODUCTORY PHASE:**

The critical ingredient here is research and design in product development. Normally, losses are heavy in this period, for volume is too small to yield a profit in the face of high promotional costs. High initial pricing or rapid market penetration can benefit the firm in this phase.

**THE GROWTH PHASE:**

The product having survived the introductory phase, the problem becomes one of getting a workable version on the market in sufficient volume to secure a brand name (franchise). This is of unusual importance for a consumer product, which must build acceptance at the distribution, retail, and consumer levels. Thus manufacturing becomes the key function. "Many products have died in the growth phase because Engineering and Research tinkered with product design so long that competitors pre-
emptied the market by the time production got under way". Of course, there is evidence that, under monopolistic market conditions, volume is more important than product quality at this stage.

This phase is considered as a period of high and sharply rising profits for manufacturer, distributor and retailer. At some point in the growth phase, marketing decisions are of greater importance for the future. For instance, while marketing the product through a specific distribution channel at the maturity phase.

THE MATURITY PHASE:

As volume rises and the market becomes increasingly saturated, marketing steps to the centre of the stage. Generally, at this point all competitive products are reliable and there is less and less to choose between them. Improvements in the product tend to be small, with selling features or style changes dominant. Hence, profit margins begin to slip during this phase, despite the rising volume. This tendency underlines the movements among manufacturers to "get closer to the consumer" by establishing branches or retail outlets. Such a step is designed to protect the firm's profit by accepting a break-even, or less if necessary at the branch or retail level to move the product in quantity. In fact, there

is no phase like maturity phase in the life of the product because of increasing population which in turn will lead to increased consumer demand. However, creating sellings can develop whole new markets for the product in this phase, despite the apparent saturation of the market. For instance, Cigarette manufacturers open the female market when the sales to male smokers approach saturation.

**THE DECLINE PHASE:**

As a product becomes increasingly mature, the pressure to reduce costs in each step of the Engineering manufacturing and distribution process mounts. This results from growing price competition, as the difference between competitive products is reduced to the vanishing point and increasingly sophisticated consumers evaluate price and quality more effectively in their buying. The advantages of the "old products" versus the attractiveness of the "new products" coming on the market also play an important part in the consumer's assessment of product value at this point.

The need for controlling costs and marketing functions which normally start while volume is still rising, becomes a matter of survival as the product moves into the declining phase.
A product's life can be extended in maturity and saturation stages by revitalising it through new packaging, repricing or product modifications. The different strategies to expand sales are:

1. increase frequency of the product's use;
2. develop more varied use of the product;
3. attract new users; and
4. find new uses for the product.

When sales are declining, the following devices should be taken into consideration:

1. improve the product in a functional sense or revitalise it in such a manner that may attract the attention of the potential buyers.
2. review the marketing and production programmes to make sure that they are as efficient as possible.
3. streamline the product assortment by pruning out unprofitable sizes, style, colours, and models. Frequently, such tactics will decrease sales but increase profits.
4. "run out" the product; that is, cut all costs to the bare minimum level that will optimise profitability over the limited remaining life of the product.

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(5) abandon the product.

Knowing when and how to abandon products successfully may be as important as knowing when and how to introduce new ones. Certainly management should develop a systematic procedure for identifying and then phasing out its weak products.1

Thus, the management of small scale units by concentrating on the points discussed above can improve and revitalise their unsatisfactory products or old products instead of introducing a new product or adopting the approach of elimination of obsolete items.

GROWTH AND DECAY TRENDS OF DEVELOPED PRODUCTS:

As discussed earlier, the product developmental efforts are devoted either to developing new products or to modifying existing products for use in almost every industrial unit. Whatever efforts are made, the products after completing their life-cycle ultimately decay. The failure rate of four out of five developed products indicates that nearly 80 per cent of the developed products are withdrawn within five years, leaving 20 per cent as saleable products.2 Out of this 20 per cent, nearly 10 per cent fall in the category of standard products and the rest 10 per cent as saleable products. It is accepted that there is a regular rate of decay of developed products it


2. The above study is based on discussion with the management of Small Scale units.
is ascertained that the percentage of developed products remaining saleable can be classified into two groups - Standard Products and Saleable Products. Standard products are those that reached a sufficient volume of sales to permit efficient manufacture at minimum cost per unit. Saleable products, on the other hand, are those that continue to be made and sold regularly but in small quantities, less than the standard products.

The success of developed products in terms of volume of sale highlights the growth and decay period. The point emphasised here is that it is the time factor which determines the growth and decay period of the developed products. As discussed above, the decay period which starts after five years highlights the importance of products replacement or modification. If this period of five years is accepted as standard period then all products of this age which have become standard products should be carefully examined with the object of starting further work on them immediately rather than waiting until falling sales signal. At the same time those developed products which are being sold, but in smaller quantities than standard products, should also be examined on the basis that if they have not recorded a good sales volume by then they are unlikely to do so at all, and that their elimination will aid product rationalisation.

The above growth and decay trends of developed products can be further corroborated from the following chart:
GRAPH II

SHOWING GROWTH AND DECAY TRENDS OF DEVELOPED PRODUCTS

PERCENTAGE OF STANDARD PRODUCTS

SALEABLE PRODUCTS

AGE OF PRODUCTS IN YEARS
From the above chart it is clear that nearly 80 per cent of the developed products are withdrawn within five years, leaving 20 per cent as saleable products. And, out of 20 per cent saleable products nearly 10 per cent fell in the category of standard products and the rest 10 per cent as saleable products.

**PRODUCT DIFFERENTIATION AND MARKET SEGMENTATION AS AN ALTERNATIVE MARKETING STRATEGY:**

A major alternative marketing strategy that is available to planners and merchandisers of product under the condition of imperfect competition is product differentiation and market segmentation. The two market strategies are employed by those manufacturers who believe in non-price competition. In its simplest term, product differentiation is concerned with the bending of demand to the will of supply. It is an attempt to develop and promote an awareness of differences between the advertiser's product and the product of competitors. This technique is frequently used by those selling reasonably standardised products such as soaps, cigarettes etc. to a broad horizontal market which is fairly homogeneous in its wants for the given item. Market segmentation, on the other hand is defined as "the break down of a market into discrete and identifiable segments, e.g., types of firms, industries, geographi-
location, also types of product requirements\(^1\). A firm unless specify the segment (or segments) to which it wishes to cater and proceed to measure its worth, cannot optimise the use of its resources and make intelligent decisions regarding its product, price, channels, personal selling, and advertising. Market segmentation is based upon developments on the demand side of the market and represents a rational and more precise adjustment of product and marketing effort to consumer or user's requirements. It is aimed at developing an idea in the minds of consumers that the products involved in the market are designed for particular market segment to achieve a greater acceptance than originally planned. In other words, market segmentation consists of taking the total, heterogeneous market for a product and dividing it into various sub-markets or segments each of which tends to be homogeneous in all significant aspects.

The strategies of differentiation and segmentation are employed simultaneously, but more commonly they are applied in sequence in response to changing market conditions. Both the strategies require heavy

\(^1\) New Prospectives in Marketing, "Glossary of Marketing terms" NCAER, New Delhi, October 4, 1972, p. 189.
use of advertising and promotion to inform market segments of the availability of goods produced or services presented for meeting their needs with precision.

**SUGGESTIONS FOR PRODUCT DEVELOPMENT:**

The suggestions for product development may be briefly summarised as follows:

1. By improving its physical appearance or making products visually appealing.
2. By analysing a product's use.
3. By removing product defects.
4. By reducing cost per unit.
5. By solving problems related to installation or product servicing.
6. By developing a trade mark for the product, etc.

**THE NEW PRODUCT DEVELOPMENT NEEDS SPECIAL MANAGEMENT:**

In recent years a great deal of attention has been directed towards new product development even if the failure rate of new products is very high. As a matter of fact, they are the result of poor new-products management. Accordingly, management must think of itself not as producing products but also as providing customer creating value satisfaction.

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In other words, successful new-product development requires constructive action on the part of management. The necessary elements for new product success are engineering, product development, cost estimation, facility analysis etc., but the three main elements for success most often missing are (1) forward planning, (2) coordination, and (3) communications. They are discussed below at some length.

(1) **Forward Planning** :

Product plans cannot be allowed to result from chance product "finds" or the demands of competition. Therefore, some one must have the responsibility for constantly planning for the future products. Product plans and product decisions must be based on facts and figures. Of course, what implies here is a need for marketing research. There should be manpower available to do the necessary fact-collecting, in order to supply answers to the many questions about the market and its requirements.

Forward planning, however, is more than fact-gathering. Facts about the market alone cannot plan the product line. It must also consider the following four essentials:
(a) Analysis of trends relating to a specific industry or any growth industry, if diversification is the objective.

(b) Determination of what products or product features are suggested by these trends.

(c) Consideration and screening of random product ideas that may be presented by anyone.

(d) Review of the facts established as the programmes progress; and a final review prior to presentation to management.

(2) Coordination:

An enterprise will not consider new products unless the forward planning is done and unless product ideas are evaluated and pushed through to commercialisation. This involves coordination of all the people involved first in forward planning and then in research and design, facilities planning, costing, pricing, distribution planning, and decision-making for a new product - in effect, taking a job that is scattered over many departments and welding it into a single unified effort. There are nine specific requirements that a person or department must keep in view:

(i) Plan the product or stimulate the planning process, bring creative minds together, and ensure that an organised, comprehensive, forward planning job takes place.
(ii) Establish long-range and immediate time tables and priorities for new product work, and supply constant pressure to ensure that the time tables will be met.

(iii) Evaluate product ideas and plans, and present this information to management for decision on a complete and objective basis.

(iv) Keep pressure on lower priority but potentially profitable projects.

(v) Act as a single point for collection of all product ideas, without organisational barriers.

(vi) Serve as a system of checks and balances for the information and opinions developed in the course of product programme.

(vii) Be the guiding hand to make certain that product programmes proceed according to sound practice.

(viii) Supply a single point of contact for outside consultants working on product programmes.

(ix) Be a central communications centre that is fully informed on all activities relating to new products work, that can disseminate information to all interested departments and bring to appropriate people's attention the information that might alter the course of a product programme.

(3) Communication:

This last point bears discussion by itself and suggests a deficiency that can cause what is probably
the greatest potential source of trouble in product programmes - insufficient communications, directions to engineering, conclusions of a planning group, decisions by management. Engineering's comments on these directions, and each basic assumption and change in any of these assumptions should be put in writing and circulated to those directly concerned with copies to other interested persons, including top management.

These three elements discussed above are generally dealt with separately, but for the purpose of taking sound decisions forward planning, coordination, and communications are considered as a single job. This job is called "Product Planning". The task should be definitely assigned by the top-management to the general manager for action. As an enterprise becomes larger and the business more complex, specialisation forces more and more people into the process, top management loses the ability to do product planning successfully. This happens for any one or all of the three reasons:

(a) The chief executive becomes insulated against the requirements of the market because of his over-organisational expediency. He can no longer keep in close touch with his markets to know what they need.
(b) He seldom finds time to devote to new products as there are generally more pressing day-to-day jobs to be done.

(c) He has trouble in coordinating second and third line people, and the ideas that must be considered between the time an idea is born and until a product reaches the market place.

When the task becomes unmanageable, the responsibility for product planning becomes one of no one in particular and everyone in general, and nothing is done, or the job goes to a line function. Sometimes, the job falls to the marketing department or to the research and design section.

Thus product planning as a matter of fact is the top management responsibility. Supporting functions such as market research, product development, financial analysis and appearance design must be available to the product planning manager. The job of product planning varies from industry to industry; but the observance of these operating principles is imperative if an industry is to rely on new products for growth and future profits. Hence, New Product Development requires special managerial skill and acumen.
PRODUCT DEVELOPMENT PROGRAMME AS A GROWTH STIMULANT FOR SMALL SCALE INDUSTRIES:

Success of an industrial enterprise, irrespective of its size—be it large scale or small scale—in today's world, depends upon the quality and competitiveness of its products. Strenuous efforts are, therefore, called for on the part of the management constantly to improve the techniques of production and distribution. Obviously, small scale industries could compete favourably with large scale industries if they are provided with proper guidance and assistance and suggested ways and means pertaining to production and distribution because they, too, enjoy certain privileges over them. Product Development Programme covering production and distribution aspects as discussed in the preceding pages works as a growth stimulant for small scale industries in our country. Dealing with production and distribution aspects, product development programme studies that before the actual process of production is undertaken, a manufacturer must take into consideration consumer-satisfaction as its ultimate goal. For the purpose, a proper study of "consumption patterns" is essential. This approach will help in ascertaining what kind of product
a firm should produce. Available means should also be analysed and investigated properly. As such, the risk of loss is minimised and some foundations laid for the growth of business because a certain method that works for one business is no reason why it must work for all. Every business is different in some or the other way and requires separate methods and policies which can only be satisfactorily developed by studying its own experiences in the light of broad business principles. He must also view as to how much emphasis should be laid on innovation, pricing, advertising, channels of distribution etc. and finally, what type of organisation is suitable for the product and for the enterprise. After taking into account these considerations a manufacturer should work on the lines suggested below:

At the initial stage it would be better for a manufacturer to concentrate his business to a limited area or a local town which can be served efficiently and expeditiously. Gradually when experience is gained and profit earned, new territories should be explored so that whatever little they have may not be wasted. It should also be kept in view that a product is the
combination of attributes. These attributes are
colour, material, design, feature, performanceability
or utility value, functions and qualities. Each of
these attributes has to be determined first if the
product is to become the "quick mover". The position
of the product in which it is to be offered should
also be determined, i.e., whether it is a new product
or a new brand. A clear distinction between a new
product and a new brand is also necessary. A new
product should not be misunderstood to be the same
thing as new brand. In case the product is a new one,
it should be entirely different from the existing
products in relation to the size, design, shape,
colour etc. and other physical features. It should
be unique, independent product having no substitution/
relation in any manner with the existing product.

"A new product is a product that opens up an entirely
new market, replaces an existing product". In other
words, a new product is one which has not been pre-
viously marketed by any other business unit like a
new type of face cream or a newly scented talc. A new
brand, on the other hand, is simply a competitor among
other products of that type existing in the market like

1. Kaushal, P. Om. Product Management, (Ed.), 1969,
p. 41.
cigarettes or certain kinds of toilets. It must have the same characteristics which the other existing products are having in the market. For development purposes, separate procedure should be adopted for each type of product (new or old product) as discussed earlier. For marketing a new product it is essential to study whether the market does exist and if it does not, whether it is possible to create a market for the product. For a new brand it is generally believed that old products are old and there is not much difficulty in their sales if they are changed into new brands as the consumers know about it. But it is only a complacent attitude, the task is not so easy as it is supposed to be. A great care is needed for the purpose. For a new brand it is necessary to study whether the market is being adequately served and whether there exists any room for another brand. It has also been observed in the case of new brands that unless new brands are distinguished from those already on the market there is little incentive for customers to buy them. This is especially difficult to achieve with homogeneous goods like cigarettes, smoking tobacco, sugar, flour, or certain kinds of toilets. For this, a distinct produce-image
should also be created in the minds of the customers about the new brand(s).

It is also an established fact that without having a systematic method of distribution of goods, no business unit can run efficiently and advantageously even if the goods have been manufactured keeping in view the requirements of the potential buyers. For the purpose of successful marketing of goods, one of the primary decisions which a manufacturer has to take is the selection of channels of distribution e.g., whether he will opt direct or indirect distribution. A commodity can be sold to the final consumer both directly through the manufacturer's own sales organisation and indirectly through an independently owned distributor.

The proper selection of distribution channel or several distribution channels depends upon such factors as the nature of the product, market, sales volume for each outlet, relative distribution costs, and how much of the marketing functions the manufacturer wants to assume.

The distribution channels can have a large number of steps in them. To illustrate, a particular product may flow through a selling agent, wholesaler, and
retail store to the consumer. Quite often, one finds a variety of channels being utilised. Direct marketing should be undertaken by the manufacturer if middlemen are doing, or would be expected to do, an unsatisfactory job in promoting the product, carrying stock, rendering service, or following recommended policies on price and credit. It becomes expensive and inefficient, especially when a low value product is involved or the typical order quantity is small. However, a manufacturer may sell directly to large consumers and use merchants or agent middlemen to serve smaller consumers.

In establishing channels of distribution, one should determine whether he is interested in employing unlimited, selective, or exclusive distribution. With unlimited distribution one should try to cultivate sales through any or all retailers able to serve the ultimate consumer. In selective distribution one should also try to limit the retailers in a given area to those who have some specific features of benefit to the manufacturer, such as large size, high sales potential, above average service facilities, etc. When establishing exclusive distribution, he should try to select the most capable outlet in
each distribution area and rely solely on those outlets for sales coverage in their respective areas.

As per international experience half or more than half of the commodities sold are through distributors. In our country, we find a similar pattern of distribution of goods. Particularly, in the case of small scale industries it is experienced that more than 75 per cent of the total commodities produced are sold indirectly by the distributors to the ultimate consumers\(^1\). Whereas, in deciding whether to sell directly or indirectly a manufacturer should consider the following points:

(a) **Control**: Some manufacturers prefer to sell their products directly because of the fact that through direct sales they can assure themselves of proper sales promotion and service and feed-back of information from the customers about the products by retaining control over sales.

(b) **Commission**: Some manufacturers prefer direct sales because of the profit from distribution. The profit from distribution has to be weighed against cost of distribution. The cost of distribution depends upon the volume and the nature of the market e.g. in a market which is

\(^1\) The author himself collected the information by conducting survey of 100 small scale units.
highly diffused, the cost of distribution greatly increases per unit of commodity sold. Generally, the commissions vary between ten to twenty per cent while the cost of sales can also vary from ten to twenty per cent depending upon various factors.\(^1\)

(c) **Economies of scale**: Except for high-priced, large or sophisticated items or specialised items where the total number of customers is small it is uneconomical for a sales organisation to handle the products of only one manufacturer. By selling products of many producers a sales organisation can offer to the user a full line and in many cases the user prefers to deal with a sales organisation which can offer a full line rather than deal with a large number of different manufacturers handling different lines.

(d) **Knowledge of market and standing with customers**: Before taking decision to set up a sales organisation of his own, a manufacturer has to weigh the above mentioned considerations. Unless he sets up a very elaborate sales organisation he would not be in a position to match the distributor's knowledge of customers and their requirements. In India the problem is somewhat very complicated due to various lines on sales and

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1. Based on discussion with the management of small scale units.
large areas of distribution. He is bound to sell his products through a national distributor who has offices all over the country.

In view of the above it is sometimes advantageous for a manufacturer in India to utilise the services of national distributors. The manufacturer who specialises in the production of special purpose can successfully, and at a reasonably low cost, market his products through his own sales organisation but direct selling is not very practical because of substantial distribution cost.

Due to scientific development and technical revolution the fashion, habits, tastes, customs, systems and the consumer behaviour is changing at a rapid speed and to meet the requirements of the changing society the nature and type of products are also getting increasingly sophisticated. Hence, it has become necessary not only for the manufacturers but also for the distributors to upgrade the technical level of their sales staff. In the case of manufacturers who are manufacturing goods of highly specialised nature the advantage of both the methods can be combined to some extent by the manufacturers' posting-specialists to the main office of national distributors as a backup.
to the distributor's sales force. In order to earn the respect of the customer he will have to, if not more, then as well be informed about production technology and product capability as the buyer. In other words, it is expected that a good salesman must know all the answers to the consumer's problems and questions. This involves a rigorous training programme before being sent to the field. The training period should vary from one to two years, the bulk of which should be on the shop floor. Salesmen recruited from the shop floor should also be given training in certain theoretical matters connected with design and utilisation of the product.

(e) **Servicing**: Service is regarded as an integral part of the selling function. Based largely on a careful analysis of the service-report data is gathered by a manufacturer to make improvements in his products. One of the main sources of recruitment of service-personnel are the people who have been on the shop floor mainly in the assembly or maintenance department. Their job entails not only to rectify defects but also to feed-back the nature of the problems to the manufacturer and to train the staff on the job accordingly.
(f) **Selling**: In recent years there has been a significant increase in impulse buying, that is, purchases are made without very much advance planning. Such buying took place for items like, cosmetics, toys, records, clothing, drugs etc. but on a very rational basis. For many such items emphasis should be laid by the sellers on promotional programmes like displays, decoration, advertisement etc., in order to take advantage of this behaviour pattern. Many customers now-a-days prefer to buy either a complete line or set of articles. In such cases a distributor who sells the product of many manufacturers is sometimes in a better position to offer a complete package. However, this type of selling is rarely found in India but during the course of next few years this would be one of the major strategies for selling.

(g) **Marketing services**: Marketing services are not as well developed in India as in other developed countries e.g. the USA, the UK, the FRG. Therefore, a major part of the advertising budget goes for newspaper advertisements which are not always the most effective method of reaching customers as the people are mostly unedu-

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cated in our country. Till such time as the professional journals develop, there is very little option in terms of reaching customers except by radio and newspaper advertisements. Some manufacturers have started direct mailing campaigns and with the increasing cost of newspapers publicity this may partly provide an answer to advertising in India.

In a nutshell, a manufacturer with regard to channels of distribution should view himself very much like a purchasing agent since it frequently has a number of alternatives and in final analysis, can either "buy" or "make" (taking on the distribution function). He must not think in terms of his particular role as a manufacturer but also view his another important role of a distributor.

CONCLUSION:

From the above mentioned discussion, it is concluded that product development is a continuous process. Dealing with production and distribution aspects it focusses attention on those forces which operate in popularising a new product or a new brand in the market. The main elements of product development programme are product development policy, product development planning,
testing product features, performances and stability, and distribution channels. Product development policy guides and directs the activities of the whole organisation towards a single goal. Product development planning deals with the making of major decisions regarding the variety of products to be produced, quality of the product, diversification and simplification and product line, identification, grading, packaging and packing etc. Testing product features, performances and stability minimise the chances of product failure. Distribution channels facilitate the physical movements of goods from producers to the ultimate consumers. Apart from all these, product development programme also deals with the methods and techniques of new as well as old product developments and thereby enables the products produced by small scale industries to be competitive and acceptable with regard to the cost of production, quality and design etc. But, it cannot be effectively planned and implemented in the small scale sector unless it is aided by an aggressive market research programme as it needs intensive investigations and inquiries about various complex business problems. This aspect of the problem forms the subject-matter of the next chapter.