UNIT 6 NEW PRODUCT DEVELOPMENT AND PRODUCT LIFE CYCLE

Structure

6.0 OBJECTIVES

After studying this unit, you will be able to :

- state the meaning and importance of product innovation;
- describe the new product development process;
- explain the concept and stages of product life cycle; and
- describe the marketing strategies at different stages of product life cycle.

6.1 INTRODUCTION

In Unit 5 you have learnt the meaning of product and various other related terms associated with it. For every company an innovative product programme is essential for the survival and growth. However, a new product just does not happen. It has to be contrived and the company has to plan it. In this unit, we will discuss the process of developing a new product, the concept of product life cycle, stages in the product life cycle and marketing strategies at each stage.

6.2 IMPORTANCE OF PRODUCT INNOVATION

To innovate means to introduce something new to introduce novelties or to make changes. When we apply this meaning to a product, an innovated product may be construed as an entirely new product or an existing product being offered with some change or modification. *A new product is, therefore, defined as a product that opens up an entirely new market, replaces an existing product or significantly broadens the market for an existing product.*

Need for an entirely new or an innovated existing product is obvious. No company can completely rely on the same product mix indefinitely. Competitors are always a keen to grab a share on others' market. It is for this reason that developing new products is considered to be one of the most important activities of any business. Normally companies keep on introducing new products, each promising some additional benefits to the consumers. As a matter of fact the very justification of the existence of a business is its ability to satisfy the customers. *A business is therefore responsible to provide much needed satisfaction to the customers through the medium of its products and services, and innovation is the keynote of this process.*

Nature has bestowed many varieties of resources to us. These resources are not carefully used, we shall sooner or later exhaust them, leaving the future in darkness. Take the example of crude oil. Unless petroleum products are used may not be far off when there may not be any crude oil left in The world, Imagine the situation afterwards, there will be no vehicles, no industrial activity, no cooking gas and no furnace oil. The list is endless but horrifying. It is, therefore, important that *products be carefully planned so that we make use of natural resources in an optimal manner*. We simply cannot afford to waste such gifts of nature.

Similarly, ineffective of manpower. If products are not planned properly and fail after their introduction in the market, all human efforts go waste. Yet we find that a large number of products meet this fate, hence a word of caution. It is important to assess the needs of the prospective customers and then the organisation should make use of appropriate technology to satisfy that need by matching it with an appropriate product or service.

A company can survive and grow only if it increases its profitability. This can be achieved through designing new products and then backing it up with a suitable marketing programme. It may, however, be recognised that adding a new product involves lots of expenditure. *Unless it is properly researched and monitored, the new addition to product/mix may not bring the desired results. It may lead to product failure and results in loss to the company.*

The consumer is becoming more and more selective in his choice of a product. With intense competition to face, a company has no option but to seek newer and newer ideas leading to more and more new products to match the situation.

To conclude, we may quote Peter Drucker, an eminent management thinker. He said, *because it is its purpose to create a customer, any business enterprise has only these two basic functions: marketing and innovation"*. Ultimately it boils down to the dictum innovate or perish"

6.3 NEW PRODUCT DEVELOPMENT

As you must have realised by now, it is very important to have a strategy for developing new products. Many products fail and in order to keep expanding company sales, we must have new products. Some products of Hindustan Lever have failed, but still they remain leading manufacturers because they have continuously added to their lines and added product lines to their product mix. Their "Hima" peas introduced in the 60s flopped, because, in the words of the Chairman of Hindustan Lever, 'India is not yet ready for convenience foods, neatly done up in packages' The product ‘concept' requires testing before one goes into product designing and it is very necessary to have an adequate strategy for developing new products and introducing them.

New product development involves marking out and supervising the search, screening, development and commercialisation. It therefore embraces decisions regarding the type of product idea to be taken in hand, its development and reaching the ultimate consumer to satisfy his demand. Such a philosophy of marketing would ensure the introduction of logical, well designed and individually justified products. This will enable the company to face the competition from a position of strength.

New product development, therefore, starts with the conception of a product idea, its due screening for its commercial and technical viability, probing its market potential and consumer acceptance, matching it with company facilities and constraints, developing the product with due thought and care, and its ultimate the largest market segment. This sequence can well be described as a customer-oriented approach to new product planning.

From the above discussion you will appreciate that introduction of a new product is highly sophisticated and difficult task and involves a long-term planning effort. It has a cost component. Even after a product is finally developed, its marketing costs are exceedingly high and yet there is no certainty that it will succeed. It is for this reason that a company should move from stage to stage in a careful and systematic manner. The approach is composed of seven steps as demonstrated in Figure 6.1

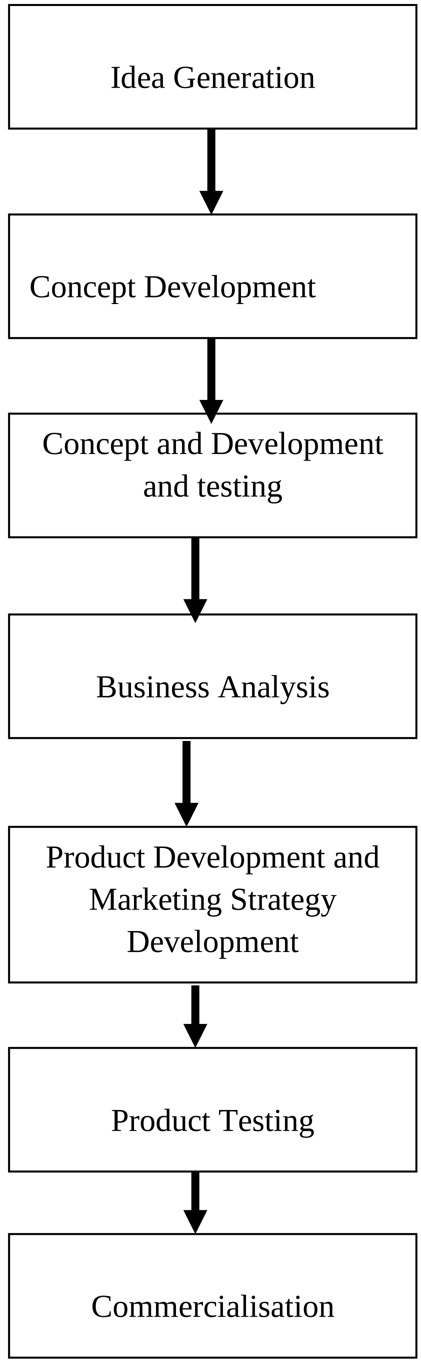

Figure 6.1 : Stages in New Product Development

We shall now discuss each stage at some detail :

6.3.1 Idea Generation

The new product approach starts with the generation of a product idea. It means matching a perceived need with the recognition of a technical opportunity. The said need may be new or an old one. It could be apparent or latent. When a technical opportunity is recognised for satisfaction of any type of needs, a product idea is generated. The new product idea can come from any one of these sources:

1) **Customer :** As marketing is aimed at satisfaction of consumer needs an alert marketer can get some ideas from the customers for possible new product by keeping his eyes and ears open, and more particularly the mind to perceive even needs which are so far unexpressed. For example, in case of refrigerators someone conceived the idea of having a two-door refrigerator, another conceived ball point which obviated the need for constantly filling fountain pens. Thus, the new ideas can come from customer needs or problems requiring solution. A customer may offer a suggestion or express some need that has remained unsatisfied.

2) **Competition:** A new product may have been introduced by a competitor or market intelligence may inform a new product. Taking a clue from such information, the company may get the idea and experiment with it.

3) **Company Sources:** Sometime ideas are put forward by company salesman or distribution channel members. Such ideas are worth consideration because such people are in direct touch with the market and are capable of detecting an unsatisfied need. Similarly, a new technological breakthrough may be announced by the company's Research and Development wing. New ideas can also be thought of by managers who keep on thinking about better products. In some cases companies conduct brain-storming sessions to promote new idea-generation from different levels and types of people in all branches of the organisation. This is basically done to have a flow of ideas.

A number of people, say executives of the organisation, are called together and asked a question for new ideas or ideas for new products. They are asked to mention it without evaluation. None is criticised. The answers are recorded on a tape recorder so that the flow is not interrupted. Thereafter, the answers generated are evaluated as well be explained in the next stage.

6.3.2 Idea Screening

After product ideas are gathered, next step is to screen them for their relative merits. In other words, product ideas generated earlier are critically evaluated at this stage. Poor ideas must be dropped immediately because unnecessary cost has to be incurred to process them further. The evaluation helps us to determine which ideas are fit for further probing and which are the ones that may be discarded. The ideas which are not compatible with the objectives and constraints of the company obviously get abandoned at this stage. Each idea must conform to company objectives and marketing needs, as also the constraints and limitations of the company. For example, a technologically sound idea may not suit the company because it may require a large capital which the company may not afford. Similarly, a company which is known for good products at economical prices may not find it easy to offer a high-priced new product because of the past image limitation. So, rather than taking up all the ideas generated, it is proper that only such ideas that come up to company and market expectations, may be pursued further.

No company can afford to pursue all ideas simultaneously. Thus, **the basic purpose of screening is to filter the ideas and select the most promising ones.** For this purpose you have to analyse the factors like market potential, profitability, likely sales volume, production facilities, availability of raw materials, possibility of using existing plant and machinery, sales force and distribution channels, financial resources the company can commit to the proposed project, etc.

6.3.3 Concept Development and Testing

The screened idea is now expanded into a concrete business proposal. From a mere expression in functional terms, the idea now gets transformed into a product concept. It means developing a fairly complete picture of the proposed company offering. It includes, in clear terms. The specifications of target consumers, the specific need proposed to be satisfied. The manner in which the need is to be satisfied, the benefit the consumer would derive from it and the cost of such need-satisfaction to the consumer. Thus, as far as possible, the concept should be exposed to target customers so that their reactions could be obtained for further evaluation. The concept so developed must be evaluated in the broader perspective of sales and profit potential, completion of product line, optimising the manufacturing and marketing facilities etc. For example, people talk about battery driven cars' to save petrol. This is a concept which has to be tested in the environment in which the product is sought to be introduced. As already indicated, Hindustan Lever failed with their Hima peas be introduced. This was a failure of concept testing. The mention of the failure of Hindustan Lever is not to run down the performance of this excellent company but to emphasise that good companies introduce a number of products some of which may fail.

The introduction by Parle's of the "Big Bite" (the hamburger) did fail in some of the regions in Indian market. Was this due to wrong concept? The answer the probably is negative. The failure was because the customer got 'soggy' hamburgers retail end. Thus, there was lack of 'quality control' at the level of the retail outlets which did not supply freshly cooked hamburgers. So you can see that even if the concept is accepted, a failure can take place in other areas resulting in the ultimate failure of the product itself. This did not deter the company from going further Parle's introduced Frooti and Appy which are fruit based soft beverage. These are offered in tetra packs. Thus there is an innovation. The question of whether testing, of the package tetra packs, as packaging material, will succeed in India or not is a question of concept testing' of the package.

6.3.4 Business Analysis

As a process of continuation of concept development, at the stage of business analysis, a fairly detailed appraisal of the proposal is undertaken. The exercise comprises of projection of future demand, sales, costs, investments and return on investment. Thus, a complete profile of the proposed product is developed.

It may be contended that such figures cannot be accurately predicted. For this reason usually the company evaluates the project under different sets of assumptions about such critical elements as sales, costs and profits. Such sensitivity analysis helps the company to appreciate the acceptable range of performance for a given product and the possibility of achieving those levels of performance.

6.3.5 Product Development and Marketing Strategy Development

By now the idea has been thoroughly screened and analysed. The time has come to convert the idea into a product. At this stage the idea gets transformed into a concentrate shape, with all the needed attributes as assumed at the previous stage. An attempt, therefore, is made to develop a prototype of the proposed product. This will help us to determine if the idea has the requisite technical potential and whether the company can master the needed technology.

This stage requires a close co-ordination between Engineering and Marketing Divisions. Engineers develop appropriate drawings, designs and build the prototype in line with prescribed specifications. *The focus of the whole job is to build up such a product prototype that is approximately close to the consumer product specifications.*

Along with the process of product development, the marketing division of the company develops a tentative marketing strategy. A blue-print is designed about the price structure, promotion and distribution strategy for the proposed product. They complete formalities regarding identification of sales force needs, advertising programme and sales promotion tools in relation to the new products. While doing so, the resource needs and capability of the organisation in this regard are kept in mind. If the company finally decides to give a green signal to the product idea, the following activities are to be taken up:

1) Establish development project.
2) If some changes have been found necessary, build the prototype with changed specifications.
3) Complete laboratory evaluation is done.
4) After developing tentative marketing strategy, the prototype is released for

Testing.

6.3.6 Market Testing

After the product idea takes shape in the form of a prototype, and tentative marketing programme has been formulated, one may go for commercial production and release in the market. However, a wise marketer does not expose the organisation to undue risk and wants to re-assure himself of a positive response. For this purpose, he undertakes 'test marketing' of the proposed product. This product testing helps in gathering further customer reactions so as bring about necessary changes in the prototype and other aspects of tentative marketing-mix, if need be. *Test marketing is, therefore, defined as a research technique in which the product under study is placed on sale in one or more selected localities or areas, and its reception by consumer and trade is observed, recorded and analysed.* The aim is to try out the proposed marketing programme in a well selected representative market segment in the expected marketing environment in which the proposed product is eventually to be placed.

By test marketing the marketer re-assure himself about the sales volume and profitability levels of the proposed product. He also gets an opportunity to ascertain the nature of consumer section to the proposed product. Test marketing triggers off market and competitive reaction to the new product. With this feedback, the marketing manager can refine the marketing strategy formulated earlier.

The following information is gathered during test marketing:

1) Potential sales volume generation.
2) Identify buyers with in innovative bent of mind.
3) Compare assumed target buyers behaviour with actual behaviour of the buyers.
4) Acceptance of strong points of the new products by the buyers.
5) Evaluation of impact of advertising message.
6) Competence evaluation of the proposed distribution channel to make the product available in the target market segment chosen.
7) Determine potential of repeat demand for the proposed product.

6.3.7 Commercialisation

Based on the information generated during test marketing, the product is duly modified and improved, and strategies about pricing, distribution and promotion are developed. Now the product is ready for introduction in the larger market. The Product is produced in commercial scale and offered for sale in the market. As a part of marketing strategy, the company may decide to introduce the product in the entire market at the same time; or it may be introduced in a phased manner in different areas. This is decided keeping in mind the production level and assuring that the product would not go into short-supply soon after introduction.

6.4 WHY NEW PRODUCTS FAIL?

Even after thorough screening at each and every stage, all the new products introduced in the market may not succeed. Many of them fail and are withdrawn from the market. For example, as stated earlier, Hindustan Lever failed with their Hima Peas and Fast Foods. Similarly, Parle's hamburger 'Big Bite' was a failure in some markets while successful in other markets. Thus, every product introduced in the market may not succeed. Now the question is: Why do products fail in the market? The reasons for product failure are attributed to six factors by Cundiff and Still. They are :

1) **Product Problems:** The products fail in the market due to certain problems with product itself as neglect of market needs or ignorance of market preferences, defects in product function. poor technical design or external appearance, poor packaging or inappropriate sizes, undependable performance or too high a variation in quality, etc.

2) **Distribution and Channel Problems:** Products fail due to certain problems in Distribution such as inappropriate channels or outlets, lack of co-operation from middlemen, poor system of physical distribution, etc.

3) **Promotional Problems:** Promotional problems that contribute to the product failure are: inadequate or ineffective promotion, advertising directed towards wrong market segments, improper use of wrong appeals, failure to co-ordinate adequately with distribution system, improper training to sales force, etc.

4) **Pricing Problems:** Pricing problems such as bad forecast of price that buyers would pay, price not on par with product quality, poor cost estimates caused ‘asking price’ to be too high, inadequate margins for the middlemen, etc. Also responsible sometimes for product failure.

5) **Timing Problems:** Timing of product introduction is very important. If product is introduced too soon or too late, it may fail.

6) **Competitive Problems:** Competitors' aggressive strategies with respect to product distribution, promotion and price may cause serious setback to the product in the market. The company had to react defensively rather than pursuing strategies.

The number and variety of the reasons for product failure suggest that success of a new product depends on the skills and strategies not only in product innovation but in formulating and implementing marketing strategy. Throughout the product innovation process, management should carefully watch the target market. An appropriate organisation is required to guide and co-ordinate the product innovation process at each and every stage. Besides introducing the product at appropriate time components of marketing strategy (product, distribution and marketing channels, promotion, and price) must be combined in appropriate proportions at each stage of the product life cycle. Skill in implementing the marketing plan is required and be capable of changing the strategies in accordance with the changing market and competitive conditions.

Check Your Progress A

1) What is product innovation?
2) What are the major steps in the development of a new product?
3) State whether the following statements are **True** or **False :**
   i) Product innovation is necessary to meet the changing preferences of consumers.
   ii) Products which are thoroughly screened at the development stage always succeed in the market.
   iii) New product ideas generate from consumers only.
   iv) Commercial viability of the product is tested during commercialisation stage.
   v) At the stage of market testing, product is actually tested in a segment of the target market,
   vi) Product is introduced in the target market in full scale during market testing
   vii) New products fail only because of unreasonable price.
   viii) Prototype of the proposed product is developed during concept development and testing stage.

6.5 PRODUCT LIFE CYCLE (PLC)

Like human beings, products also have a distinct life cycle. A product generally passes through four stages during its entire life from birth to death. These stages are. 1) introduction, 2) growth, 3) maturity, and 4) decline or obsolescence.

Thus, product life cycle refers to the stages a product goes through from its introduction, through its growth and maturity, to its eventual decline and death (withdrawal from the market).

A company which introduces a new product naturally hopes that the product will contribute to the profits and provide consumer satisfaction for a long period of time. This however, does not always happen in practice. So, business organisation try to remain aware of what is happening throughout the life of the product in terms of the sales and the resultant profits. The sales volume and profit curves vary each product. However, basic shape and relationship between the two factors usually remain identical. As stated earlier, new products are essential for sustaining the organisations and for sales volume curve and profit margin curve and profit margin cur marketing policy. A company must understand and manage the various stages of life cycle of a product to ensure marketing success.

The total length of the life cycle varies from product to product. It ranges from a few weeks (as in the case of a fashion or a fad) to several years (as in the case of motor cycles or refrigerators)

You should note that among various the duration of each stage is not the same. As a matter of fact it is different with each product. There are product which remain in the introductory stage for a numbers of years, while some others may find market acceptance in a few weeks and thus move on to the next stage of this life cycle.

Similarly, all products may not pass through all stages of life cycle. A product may fail right at the stage of introduction. There may be situations where a company may not enter a market till the of another company gains acceptance and reaches the growth or maturity stage.

However, all products enter the decline and possible abandonment please. This could be because of any of the following three reasons. Firstly the need for the product is not there. Secondly, a better or less expensive product came into the market. Thirdly, a competitor, with a better marketing effort, forces the company product out of the market area.

Look at Figure 6.2 carefully. It presents the relationship between the sales volume and profit volume at different stages of the product life cycle.

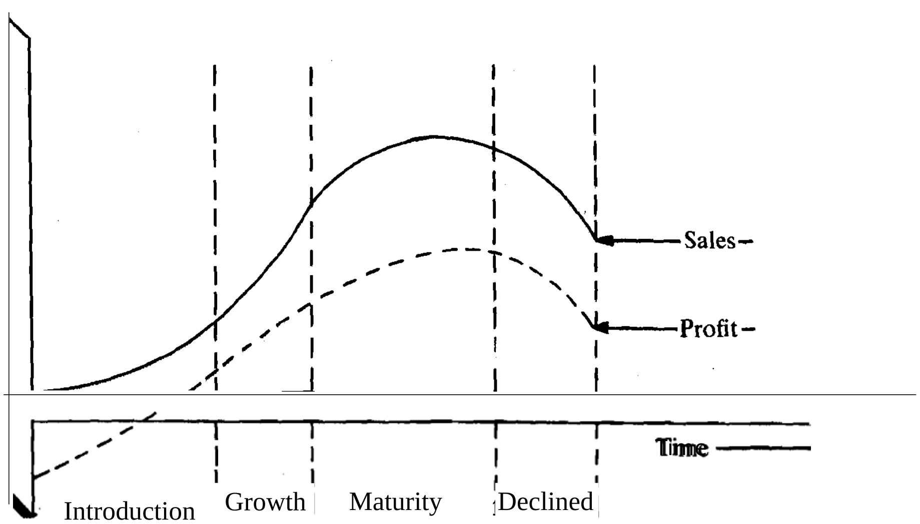

Figure 6.2 : The Product Life Cycle

Introductory Stage

During this stage arrangements for full scale production are made, a marketing programme is finalised, and the product is offered to the market. From Figure 6.2 you can assess that the sales volume shows an upward trend, but the rate of growth is quite slow. At this stage, the product being new and has been first made available for purchase in the market, it may not face competition in the market.

The company has to communicate with target market and inform potential customers of the new arrival in a big way, thus incurring high promotional expenditure. The promotional effort is also aimed at inducing the potential buyers to buy and test the product. It also aims at securing distribution at retail outlets in the process. More money is spent in attracting distributors for the new product. Because of this high promotional costs and low sales volume, during this introduction stage, the profits of company are low and sometimes even negative.

There are, if at all, only a few competitors and they all offer the basic version of new product without any refinements. Selling effort at this stage is, therefore aimed at those prospective buyers who can be motivated to buy. Product at this stage, is usually price high because of low level of production and high cost of promotion distribution.

Growth Stage

After the product gains acceptance in the market i.e., accepted by the consumers as well as trade, it enters into the growth stage. Now the demand of the product, grows, rapidly, generally outpacing supply. In the light of increased sales volume the company profits also increase. Effective distribution and promotional efforts are considered key factors during this stage, so as to cash on the rising trend of demand. The company considers increased sales volume as a top priority.

In the wake of rising demand, a large number of competitors begin to enter the market. The competitors start adding new features to the product. With the rise in competition, distribution outlets also increase in number resulting in increased demand to "fill the pipeline” Prices normally remain at the same level or may fall marginally. Promotional tempo is maintained or even raised to meet the challenge of competition.

Maturity Stage

It is too optimistic to think that sales will keep shooting up. At this stage, it is more likely that the competitors become more active. In case your product is a novel one, by now competitors would have come out with a similar product in the market to compete with yours. Therefore, the sales are likely to be pushed downwards by the competitors while your promotional efforts would have to be increased to try and sustain the sales. Thus, the sales reach a plateau. This is called the 'maturity stage or 'saturation'. At this point it is difficult to push sales up. With regard to the profit picture, the profits are likely to stabilise or start declining as more promotional effort has to be made now in order to meet competition. Unless of course, you have the largest market share with your product and it needs no extra push in the market.

Decline or Obsolescence Stage

Thereafter the sales are likely to decline and the product could reach the 'obsolescence' stage. Steps should be taken to prevent this obsolescence and avoid the decline. This decline that generally follows could be due to several reasons such as changes in consumer tastes, improvement in technology and introduction of better substitutes. This is the stage where the profits drop rapidly and ultimately the last stage emerges. Retaining such a product after this stage may be risky, and certainly not profitable to the organisation. Thus, a firm has to finally choose between a total abandonment of the product or continue it in a specialised limited market. The decision will be based on the level of remaining opportunity and ability of the management in this regard.

6.6 MARKETING STRATEGIES AT DIFFERENT STAGES OF PLC

Product Life Cycle as a concept is directly linked to the overall marketing strategy of the organisation. It not only affects the product planning exercise but also other components of the marketing mix, viz., pricing, promotion and distribution. Now let us study the various strategies normally adopted at various stages of PLC.

Introduction Stage —x— 10-11-24

At the introductory stage, we have to increase sales and hence spend a lot on physical distribution and promotion. This is because we have to create an awareness and acceptance of our product. We must also increase its availability. Very often in India, it is noticed that a product is advertised but is not available at the distribution outlets. This is a waste of promotional expenses. We must make optimum use of the available resources of the organisation. Thus, distribution should be arranged before the product is launched.

We have to also counter the reluctance of customers to change their established patterns and make them purchase out product, particularly if it is of a novel nature. As against this, if it is a noval one, people may even but it out of sheer 'curiosity'. The company can adopt skimming price strategy if it fears the entry of many competitors in the line. Alternatively, it may adopt penetration price (low price) to penetrate deep into the target market, thereby make the competitors' entry difficult, if not impossible. Skimming price is more effective when the threat of competition in the short run is not there and the company assures itself of return on investment right from the beginning penetration strategy is appropriate to keep competitors at bay. (You will study in detail about pricing in Block 3.)

Growth Stage

During the growth stage, with mounting expenses in all phases of marketing mix, the growth opportunity entails large investments. Such large financial outlays assure the company to enlarge the market share. In view of the fact that sales graph is indicating a rapidly rising trend, the company may have to invest sufficient sums to keep production in pace with rising sales volume. All this, therefore, calls for more production, extended distribution, and well thought out pricing and promotion policy. During the last phase of growth stage, when the sales shoot up and we are satisfied with the profit generated by the product, competitors will now enter the market and perhaps offer new product features. Therefore, we may have to think of improving our product so that we do not reach the ultimate 'decline' stage too quickly. The promotional expenditure is maintained at the same level or is raised slightly in order to meet competition.

Maturity Stage

We now come to the next stage called the maturity stage. This stage generally lasts longer than the other stages and poses problems for the management in maintaining the sales level. Actually, there is a slow down in the growth rate of the sales in case of such matured products. The company may well adopt a three-pronged strategy 1) market modification, 2) product modification, and 3) marketing mix modification.

1) Under **Market Modification** the company stresses to unearth opportunities by finding new buyers. It can be done by looking for new markets/new market segments.

   Alternatively, you can find new ways of using the same product. Otherwise, you may re-position the product and concentrate your promotional efforts in a new/growing market segment. In this way, you can improve the market share.

2) The product, by now, has become stereotyped. There is need to come out of this stagnant picture. This can be done by well thought out changes in product characteristics to attract

new customers or more usage by existing customers. **Product Modification** can be brought about by improving the quality or features or style of the product.

3) A company tries to stimulate sales during the maturity stage by **modifying the marketing mix** strategies. It can assume any of the following forms: 1) reduce Price to attract new customers, 2) develop more affective advertising campaign, 3) aggressive promotion characterised by trade deals, gifts, contests and freeships, 4) offering new or improved service to the buyers, and 5) offering more incentive to channel members.

Declining Stage

When a Product moves into the decline stage, we need to adopt different types of strategies. The decline may be slow or rapid. It may be due to better substitute, products better competition, technological advances with which we have not kept up and several other reasons. Such a product now proves expensive for the organisation. One must, therefore, be willing to consider the elimination of such marginal or unprofitable products. It requires constant monitoring and review of sales volume from each market segment. This is essential to decide about total withdrawal from those areas where operations become uneconomical and the market cannot be stretched any more. Thus management is faced with the problem of considering total/partial abandonment of the product. Using resources of the organisation in chasing unproductive pursuits is not good for the company. For a company, product withdrawal is as important as product Introduction. Ultimately unprofitable product have to pave the way for a new product.

Check Your Progress B

1) What is product life cycle?
2) List out the stages in a product life cycle.
3) Identify at what stages of their respective product life cycle are the following products in Indian market context.

	Product	Stage
i)	Colour Televisions	……………………
ii)	Manual Typewriters	……………………
iii)	Steel Furniture	……………………
iv)	Computers	……………………

4) Try to identify at least two products in each stage of product life cycle in India market.
   i) Introductory Stage:
   ii) Growth Stage:
   iii) Maturity Stage:
   iv) Decline Stage:

5) Identify four new products which failed in the market.

6) State whether the following statements are True or False.

   i) At the introductory stage the company may incur losses.

   ii) Rate of increase in the sales volume is higher in introductory stage compared with growth stage.

   iii) Company profits start increasing rapidly in the growth stage.

   iv) Competitors start entering the market in growth stage.

   v) The sales reach a plateau in maturity stage.

   vi) The strategy of market modification is adopted in growth stage in saturation stage.

   vii) Product may be modified to attract new customers and, thus, improve sales

6.7 LET US SUM UP

Product innovation means offering a new product or an existing product with some change or modification. New product introduction is important because: 1) firm cannot simply rely on present product mix for a long time to come, 2) increasing competition to cut into the market share enjoyed by the company. 3) Better utilisation of company resources, 4) new products add to the overall profitability of the organisation, and 5) changing tastes and needs of the consumers.

The process of new product development consists of seven stages: 1) idea generation, 2) idea screening, 3) concept development and testing, 4) product development marketing strategy development, 5) business analysis, 6) market testing, and 7) commercialisation. The purpose of each stage is to decide whether the idea should be further developed or dropped. In this process the company aims at minimising the chances of poor ideas moving forward and good ideas being rejected.

Even after careful screening at each and every stage of product development pro many products fail after introduction in to the market. This is mainly due to the problems associated with product, distribution channel, promotion, pricing, competition and timing of the introduction.

Like human beings, products also have life cycle. A product life cycle (PLC) consists of four stages: 1) introduction, 2) growth, 3) maturity, and 4) decline.

The time taken for transit from one stage to the next varies with each product, the company and the timing of introduction of the product. Similarly, the profit curve varies from product to product and the stage of PLC.

Introductory stage is marked by slow growth and low profits (even losses), as the product is just pushed into distribution. Heavy promotional and distribution emphasis is needed and heavy expenditure is incurred at this stage. When the product enters growth stage, sales and profits increase rapidly, customers are aware of benefits provided by the product and middlemen show interest to distribute the product. With the rise in demand and competition increases in size and numbers. New features are added to the product to make it more attractive, price is either maintained or is slightly reduced, and promotional tempo is sustained or even raised. During maturity and saturation stage, competition intensifies and profit margin declines. There is a need to increase advertising, reduction in prices and offer more incentives to distributors. Product improvements are restored to and cost economies are thought of to arrest the trend of decline. At the decline stage, sales and profits decline rapidly, while new and better products enter the market. Companies tend to cut back on promotional expenditure, unless considered essential to revitalise the product. The company has to take the sad decision of withdrawing the product from the product line

6.8 KEY WORDS

Decline Stage : A stage in the product life cycle where the sales and profits shoot down.

Fads: Novelty products that come quickly to the public eye and are lost fast. Here the product life cycle is very brief.

Fashion: A style which is currently accepted but is likely to change, as fashions move in a cycle and change over a period of time to return to the original. For example, a woman's skirt gets longer and longer until it can get longer no more. It then goes upward as fashion moves in a cycle.

Growth Stage: A stage in the product life cycle when the sales and profits increase happily for the organisation.

Introduction Stage: A stage in the product life cycle where the product is just introduced and is at the beginning of the product life cycle. This is evidenced by slow growth and very small profits.

Market Testing : A stage in the product development where the product is actually tested in the market, that is, introduced in a consumer setting with a view to ascertain the reactions of consumers and dealers before a final decision to market or launch the product is made.

Maturity Stage: A Stage in the product life cycle where the sales stop going up and n because competitors have entered the market and it becomes difficult for a continuous increase in the sales.

New Product: A product that opens up an entirely new market, replaces an existing for significantly broadens the market for an existing product.

Product Life Cycle: Refers to the stages a product goes through from its introduction, is growth and maturity, to its eventual decline and death.

6.9 ANSWERS TO CHECK YOUR PROGRESS

A 3 i) True ii) False iii) False iv) False v) True vi) False vii) False viii) False

B 6 i) True ii) False iii) True iv) True v) True vii) True

6.10 TERMINAL OUESTIONS

1) What do you mean by product life cycle? Discuss the various stages in the life cycle of a product.

2) How can a company develop new products?

3) Why are the generation, screening, and analysis of ideas the most important steps in new product development?

4) Give some examples of products you regard as being in the :
   a) Introductory stage
   b) Decline stage

   Give reasons for your conclusion.

5) Explain briefly the 'product life cycle concept' in marketing management and state why you feel it is useful to understand this concept.

6) Explain how the marketing mix has to be changed during the different stages of the product life cycle?

7) Selection and development of a new product are very important steps in the marketing strategy. Explain briefly the stages through which you would test ideas coming up for new products until the final stage of launching the new product.

Note: These questions will help you to understand the unit better. Try to write answers for them. But do not submit your answers to the University for assessment. These are for your practice only.