
UNIT 8 PRODUCT DEVELOPMENT AND PRODUCT LIFE CYCLE

Structure

- 8.0 Objectives
- 8.1 Introduction
- 8.2 Product Innovation - Meaning, Types and Importance
- 8.3 Product Development Process
 - 8.3.1 Idea Generation
 - 8.3.2 Idea Screening
 - 8.3.3 Concept Development
 - 8.3.4 Business Analysis
 - 8.3.5 Engineering Development and Marketing Strategy Development
 - 8.3.6 Test Marketing
 - 8.3.7 Commercialisation
- 8.4 Characteristics of Product Development
- 8.5 Why New Products Fail?
- 8.6 Product Life Cycle (PLC)
- 8.7 Implications of PLC on Marketing Strategies
- 8.8 Let Us Sum Up
- 8.9 Key Words
- 8.10 Answers to Check Your Progress
- 8.11 Terminal Questions

8.0 OBJECTIVES

After studying this unit, you should be able to:

- understand the meaning, types and importance of product innovation
- visualize the step-by-step process involved in product development
- draw lessons for the success of a firm in product development exercise.
- analyse and evaluate the possible factors contributing to failure of new products
- understand the concept of product life cycle and its implications, at different stages, on marketing strategies

8.1 INTRODUCTION

The rate at which "new" products are introduced in the market, has, in recent years, accelerated and simultaneously "old" products are disappearing from the market very fast. Why is it happening? Why should companies spend resources on introducing so called "new" products with such high frequency? What are the risks involved in product development? How do the companies decide that the time has come for introducing "new" products? Is any scientific process involved in developing a "new" product? This unit seeks to address these issues.

8.2 PRODUCT INNOVATION – MEANING, TYPES AND IMPORTANCE

The term "innovation" means "bringing in novelties" or "making changes". As far as "product innovation" is concerned, it covers a wide range from making minor or major changes in the existing product to introduction of substitute products or totally new products. It is true that it is not easy to claim any product as totally "new" since the idea for a new product originates from the existing products. That is why it is advised that a company should define its business in broad terms i.e. it is in "dental hygiene business" and not in "tooth paste or tooth powder business" or in "transportation business" and not in "bicycle or automobile or rail road business". Defined this way, no product can be construed as a "new product". As far as business is concerned, a "new product is one which the target consumer segment considers new" in the sense the consumer feels that the need is met by the "new product" cannot be met by any other substitute product at a particular point of time.

Why do companies go in for new products? A simple answer to this question is "to meet the changes in environment". The changes can encompass one or more of environment factors viz., competitive environment, technological environment, cultural environment, political environment, legal environment. Thus, to meet competition, which has come out with a better product or fearing that competitors may introduce, in the market, a new product, companies go in for new products. Technology may open up new avenues in the form of better raw materials or better production process or better management, opening opportunities to make better products; the likes and dislikes of consumers may change forcing changes in the type of products to be produced; government and other policy formulating and enforcing authorities may make it obligatory for a company to make changes in the existing product.

The above are all external environment factors forcing the firm to bring about changes in the product. However, an enlightened company should be always on the look out, as a policy, for opportunities for product innovation, instead of waiting for it to be forced into it by external factors because, this way, it will not only pre-empt competition, but will also be able to build up an image of a firm always trying to meet changing market requirements.

What are the alternatives available to a firm to make changes in its existing product?

The company can consider improving the functional quality of the product and project the "new product" as one of better quality. This change can be brought about by use of better quality inputs and/or better engineering as and when it is possible. This option is advised if quality is the major consideration in the purchase of the product and the market is a quality conscious market. High unit value consumer items and engineering and chemical items normally fall into this category.

Another option for the company is to change the product features i.e. increasing the number of real or fancied benefits of the product by redesigning so that the new product offers more functions, convenience, safety, etc. Items like refrigerators, television sets and washing machines fall into this category. The features frequently added to products such as cell phones, automobiles and two-wheelers are common knowledge.

Changes are also brought about in the style of the product to make it appear new. In this case, what is attempted is to improve the aesthetic image of the product as against the functional appeal. Highly personalized products like garments, footwear, handbags and luggage, which are not high unit value items, undergo such changes frequently. Shows such as summer wear and winter wear shows that are held regularly for garments, for instance, bear this out.

Product "innovation" or "change" does not end with the above. It encompasses a larger area. On account of availability of improved technology, it may be possible for a company to "replace" the existing version of the product with another version, which meets the same requirement of the consumer, but with more ease and convenience. For instance, a brand of tooth powder may be replaced by the same brand of tooth paste, ground coffee by instant coffee, tea leaves by tea bags and shaving cream by shaving foam etc. These are instances of "adaptive replacement".

Introduction of substitute products for the existing product is also a case of product innovation. Replacement by ball pens of fountain pens and pencils is a good example of this strategy. This has been made possible by technology. Substitution of steel by plastics in many products also falls in this category. The point to be noted is that the new products meet the same requirement of the consumer much better and, perhaps, at cheaper cost, though they involve use of different raw materials and different production processes.

In all the above types of innovation, the new product need not necessarily be "new" to the company or to the industry. The competing firms, or, even the concerned firm itself, may be selling such versions of the product in other markets. What is important is that the target market must consider the product "new". It is common knowledge that most products are first introduced in a limited number of countries/limited parts of a country and then they are taken to other countries/other parts of a country,

8.3 PRODUCT DEVELOPMENT PROCESS

It is very important for a company to be constantly on the look out for opportunities for product development for long time survival and prosperity in today's fast changing competitive environment. It should not be lulled into complacency even if it is the monopoly producer and seller of a product, for the present. For, competition may not emerge from another producer of the same product but from other sources. For example, jute is facing competition from synthetic fibres and technological developments like bulk handling techniques; steel is facing competition from plastics; minerals such as copper used in telecommunication are facing competition from plastics and fibre glass and, most importantly, from cell phones which use air waves; a monopoly producer of tea may not have another tea manufacturer to compete with him but a coffee or aerated drinks manufacturer; cane sugar faces competition from beet sugar and sugar substitutes. Thus, it is always in the interest of a company to be at least one step ahead of other companies and introduce a "new product" before the competitors do it. It will also project the company as the "leader".

What then is a systematic way of going about for product development? Figure 8.1 presents the step-by-step process involved in product development.

8.3.1 Idea Generation

Product development exercise commences with sourcing for ideas. Ideas can come from any source and, in fact, some even the most unlikely source. The most important source is, of course, the user of the product. The problems faced by the consumers in the use of the existing version of the product will throw up ideas for product development. For instance, the problem posed by the heaviness and large size of the tape recorder gave birth to Walkman. Similarly, distributors, retailers, employees of the company, friends and relatives, independent researchers and consultants or, for that matter, anyone can be a source for ideas. Incidentally, in a number of cases, competitors have proved to be a good source for ideas because, a close watch on their products and the problems faced by users of those products has thrown up a number of ideas. What is important is that the management must encourage ideas and

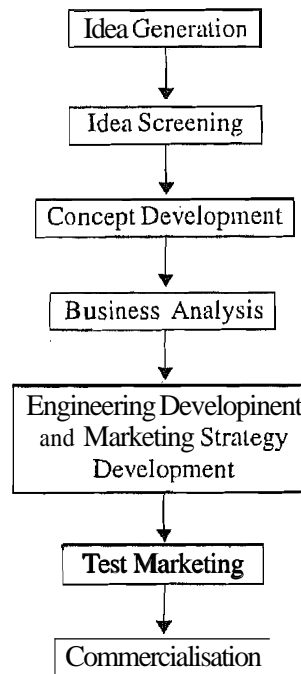


Figure 8.1: Product Development Process

keep its eyes, ears and mind open for ideas. There should be a deliberate policy to generate and encourage ideas and reward the successful idea providers. Some formal system such as institution of an "idea bank" may be considered in this regard.

Some of the commonly used methods of generating new product ideas are Brainstorming, Focus Group Interviews and Attribute Analysis which are briefly discussed below.

Brainstorming: It is a popular creative technique with a Long track record. It was first developed in 1938 by A.F. Osborn and gained acceptance by the business world in the 1950s. Brainstorming aids in idea generation by encouraging the creativity latent in many of us. It involves meeting, usually of a group of six to ten people, where participants are free to express any and all ideas they concoct.

Focus Groups: The conducting of focus group interviews is very much like that of brainstorming. But the members of the group are consumers (rather than employees of the firm) and, usually, are decided on by a market research agency. That is to say, focus group interviews can be thought of as brainstorming with consumers/potential consumers.

Attribute Analysis: By decomposing existing products into combinations of specific parts, qualities, or attributes, Attribute Listing (or Analysis) seeks to modify one or more of these to improve the whole product. Although Attribute Analysis may not produce major breakthroughs, it can undoubtedly aid in "remarketing" – "new" and "improved" products – and possibly in product differentiation.

Besides the above methods, scanning trade publications, visiting trade shows, setting up an idea vault in the organization and allowing employees to review the ideas, surveying customers etc. are some of the other means of generating new product ideas.

8.3.2 Idea Screening

Once a reasonable number of ideas have been generated, the next job is to screen them by a group representing as many interests as possible, such as management,

labour, marketing, finance, consumer, research and development, engineering, etc. Such a screening enables the ideas being looked at from various angles and the implications of conversion of an idea into a product analysed, such as the nature and extent of resources to be committed, the impact of product development on labour, the problems likely to be faced in production and sales, etc. At this stage, some ideas may get rejected totally, some accepted "in toto" and some accepted with modification. Some ideas may be referred back to the idea givers for modification, seeking clarification, etc.

Screening of new product ideas is essential for costs and risk of developing new products run very high. Once a product reaches the market place, what is done cannot be easily undone. Screening criteria usually concern themselves with three factors – markets, products, and finances. More frequently used 'market criteria' are market size, share; market growth; market positioning; distribution features etc. The 'product-criteria' are newness, feasibility; servicing requirements; legal considerations etc. The 'financial criteria' are profitability; return on investment; cash flow etc.

8.3.3 Concept Development

The approved idea must now get transformed into a specific product concept with a complete picture regarding the new offer of the company. This means spelling out, in clear terms, details such as the profile of the target consumer segment, the specific want that is sought to be met, the differences between the product presently being used by the consumers and the new product, particularly its positive attributes, the likely impact of the new product on the company's image and on the other products of the company, etc.

8.3.4 Business Analysis

The foregoing analysis is carried forward in the next stage, with detailed appraisal of the proposal including sales forecasting, estimation of costs, prices and profits at different sales levels, the possible retaliatory strategies of the competitors and the company's likely response to the same etc. Since all the above cannot be estimated with total precision and, in any case, a number of assumptions are involved in the exercise, it is generally the practice to work out different sets of figures under different assumptions and so long as the final performance falls within an acceptable range, the utility of this exercise is established.

8.3.5 Engineering Development and Marketing Strategy Development

During this stage, the technical personnel i.e. the engineering department responsible for production, work on conversion of the approved idea into a product, with all the suggested attributes. At this stage, any one of the three possibilities exist; the engineering department may meet with total success in manufacturing the product, or it may meet with total failure, or it may be able to come out with a product that may not fully, but only partially, reflect the original idea.

Simultaneously with engineering development, the company also develops the marketing strategy in terms of branding, servicing, packaging, pricing, distribution and promotion. Individuals and groups within the firm are identified for specific assignments and the sequence of events is worked out.

8.3.6 Test Marketing

Once the prototypes of the product are ready, the company does not go in for commercial production immediately. Though all care might have been taken till now to come out with a product that meets the present needs of the consumer, it is advisable

to "test market" before commencing commercial production. Test marketing is selling the product under conditions, in a market, which, to the extent possible, reflect the conditions likely to prevail in the market, at the time of commercial sales. Test marketing will enable the company to get feedback on its offer so that the drawbacks can be rectified before commercial production. Test marketing will also provide information on the likely level of sales that the product can generate during commercial sales. However, the company should guard against two problems during test marketing; one, it should ensure that competing firms do not benefit by advance information on the company's strategy which may enable them take effective pre-emptive measures and two, test marketing should not raise the expectations of the consumers too much because, if the company is not able to rise to the expectations subsequently, its sales will be badly affected.

8.3.7 Commercialisation

Test marketing is the last stage before a company takes a decision regarding whether to go ahead with commercial production or what modifications are still required in the product or to drop the exercise totally. Once it is decided to proceed to the next stage, it should initiate steps for commercial production of the product. It is advisable to keep the time lag between test marketing stage and commercial production stage to the barest minimum since, if the time lag is large, there are possibilities of changes in environmental factors such as government policies, the country's laws, technological factors, consumer choices etc., which may make the entire exercise futile. It should also be emphasized that the company should have the guts to abandon the product development exercise at any stage if circumstances so warrant, notwithstanding the fact that the investment made so far would go waste, since proceeding further will only add to the losses.

8.4 CHARACTERISTICS OF PRODUCT DEVELOPMENT

Two aspects of product development merit mention. One, product development must be treated as a continuous process, which does not have a beginning or an end. This means that a company should not wait till the product sales stagnate or decline to commence product development exercise. Even if the sales are increasing and, in fact, as soon as a particular version of the product is introduced in the market, the company should initiate action for coming out with the next version of the product as early as possible. The motto should be "nothing is perfect; there is always scope for improvement". The second aspect, which is equally important is, success in product development is possible if only there is concurrency and healthy inter-relationship in all the functions of a firm. Product development should not be construed as the responsibility of any one department or one group or limited number of departments or limited number of groups of persons in a company. On the contrary, it encompasses all departments and the entire staff of a company, from the lowest level to the top management, should get involved in the exercise and the activities of each department should be geared to the requirements of the other departments and vice-versa. The idea givers and evaluators should take into account the strengths and limitations of the company and should not give utopian ideas; those who are in charge of converting the idea into a product should strive to meet the requirements of the market as conveyed to them. Profit is a function of total efficiency and not sectional efficiency and no weak link in the chain should be allowed to snap the chain.

Risks in Product Development: Though, for long term survival in the market and prosperity, a firm should definitely go in for product development, it is, by no means, an easy job. It is important that a company, before it embarks on product development exercise, is aware of the risks it is likely to face during this phase.

First, the exercise involves substantial commitment of resources, depending on the nature and extent of the development that has to be brought about in the product. The firm should be clear, right at the beginning, whether it can marshal the needed resources for the exercise. Apart from the resources to be spent on bringing out the new product, more resources have to be employed to successfully market the product.

The second risk relates to the nature of research and development. There is high wastage rate in research and development and it is quite likely that, even after spending the resources, a company may not succeed in coming out with a "new product" meeting its own perception. This means that the firm has to abandon its efforts and the resources spent till then are dead investment.

The third risk arises due to the fact that markets all over the world are not generally favourably inclined to accept new products easily. The failure rate of "new products" is very high. Failure does not mean that not a single unit of the product was sold; it means that the sales turnover was not sufficiently high to justify continuation of production.

8.5 WHY NEW PRODUCTS FAIL?

Why is the rate of failure of "new products" very high? The obvious answer is that the "offer" has not met with the customer requirement in terms of any one or more than one variable. This arises because either the company has not read the customer mind correctly or the customer wants have changed in the meantime or the company has not fully succeeded in translating the customer requirements into its offer. Specifically, the failure may be traced to one or more of the following factors:

Product: Product factors such as functional quality, size, shape, colour, design, materials used in its production etc. of the product not upto customers' requirement

Package: Functional quality, the material used in the package, size, shape, colour, design, and instructions on the package including the languages used, disposability or reusability of the package, compatibility with the product, aesthetic appeal, ease of opening and closing the package etc., determine acceptability or otherwise of the package and, along with it, the product.

Label: The size, colour, language(s) used, shape and material influence customer preference.

Brand: Brand name and brand logo are, along with trademark, major considerations in purchase decisions.

Service: Pre-sale, point-of-sale and after sales service play a major role in the purchase, particularly of high unit value durable consumer goods and capital equipment. Before buying a product, the consumers want to be educated about it and how to maintain and use it; they also desire that the seller should install the product and train them to maintain it and finally they want quality after sales service at reasonable cost at a time and place convenient to them for a reasonable length of time. If a company fails in any of these, the product fails.

Distribution: Selection of inappropriate channels and outlets, lack of motivation among distributors, inconvenient location of distributors and poor service quality of distributors are some of the problems associated with the failure of the product,

Pricing: Product quality/price relationship not being optimal, nonavailability of credit for high unit value items, lack of incentives such as price discounts, and frequent price revisions cause product failure.

Promotion: Selection of inappropriate promotional tool, non-availability of effective promotional tool, communication mistakes, poor literacy level of the market, non-availability of capable promotional firms, problems in personal selling and sales promotion lead to poor communication with the customer affecting product sales.

Environment: Changes in environment – technological, legal, competitive, cultural, political – which could not be anticipated in advance and provided for, lead to product failures.

Check Your Progress A

- 1) Give three reasons for a company to go in for a new product.
.....
.....
.....
.....
- 2) List the various steps in product development
.....
.....
.....
.....
- 3) Are the following statements correct or incorrect?
 - i) Product innovation is not necessary for a company which already has a successful product in the market
 - ii) The first step in product development is test marketing
 - iii) In a firm, product development is the sole responsibility of the marketing department
 - iv) The success rate of new products has always been low
 - v) Price is the main factor contributing to product failure:

8.6 PRODUCT LIFE CYCLE (PLC)

It is generally said that products are like human beings; they are born, grow (in sales), fall sick (decline/stationary sales) and ultimately, in most cases, die (disappear from the market). New generation of products replace their earlier ones. Pencil has been replaced by steel pen; fountain pen by ball point pen; mechanical typewriters by electric typewriters, electronic typewriters and computers; blister packs have replaced glass bottles in pharmaceutical industry; dial telephones have been replaced by push button phones, chordless phones and cell phones; letters, as a means of long distance communication, have been replaced by telegrams, telephones, telefax and electronic mail. The entertainment sector has seen many products, such as radio, tape recorder, walkman, television, VCP, VCR, DVD, CD-Rom, cable TV etc.; washing bar soaps have been replaced by cakes, synthetic detergents, powders and liquid soaps, Such examples are too many to warrant exhaustive listing.

The above fact has been conceptualized in the product life cycle (PLC) concept.

Figure 8.2 is a useful reference for the PLC concept, indicating the different stages a branded product normally passes through in its life.

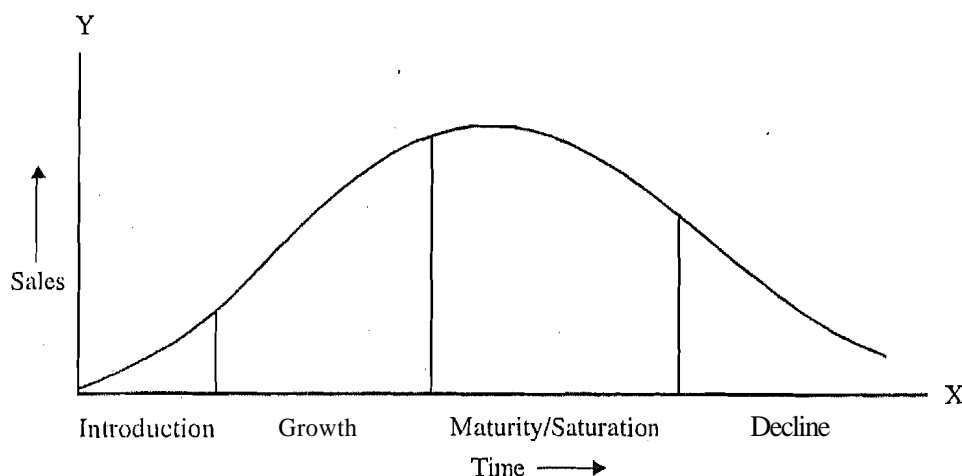


Figure 8.2: Product Life Cycle (PLC)

The above figure has been drawn in terms of four stages but a five stage PLC or a seven stage PLC can be thought of. The reference in the above figure is to a brand (of the product) and not to the generic product. Just as a brand (a particular company's product) passes through a life cycle, a generic product (of the industry as a whole) also has a life cycle. Industry life cycles are long as compared to the life cycle of a branded product. For a firm, what matters most is the life cycle of its own branded product although if the generic product as a whole dies, its own brand will also die.

Figure 8.2 refers to a typical product life cycle. It does not mean that all the products/brands have to necessarily pass through the typical life cycle. The shape of the life cycle curve will vary from product to product and from brand to brand. It may have a steep rise and sudden fall; or slow rise, long maturity period and slow decline; or it may move up and down; it may be long or short; generally for low technology low unit value items and fashion goods, the life cycle tends to be short, in a seller's market and for a high technology, high unit value item and for "necessities" for which no effective substitutes exist, the life cycle tends to be long.

Thus, the concept of YLC can be made applicable to all types of products and all brands. Competitors are always on the look out for opportunities to cut into the market share of a successful product; they try to wean away the customers with "better" offers in terms of product, package, brand, service, price, promotion and distribution. Even so called "necessities" are "necessities" only at a particular point of time: petrol may be a necessity today; but alternate sources of energy may pose challenges to petrol at a future date; a particular foodgrain, such as rice or wheat, may be a necessity today to a consumer group, but changes in food habits may lead to decline in demand for rice and/or wheat after some time; same will be the case for other 'food' items such as beverages, sugar, vegetable oils, pulses, etc.; agricultural raw materials such as cotton and jute, which were considered as "necessities" not long back, are facing competition from synthetic products today; minerals such as iron ore and copper are being challenged by plastics, fibre glass and technological developments; technological developments have also enabled production of low weight and small sized products, resulting in reduced demand for raw materials. Thus, just as some human beings and animals enjoy long life as compared to others, in the product category also, "necessities" may have a longer life as compared to others. What a company should, however, be concerned with, is the life cycle of its own brand (or product), even if it belongs to an industry that is producing a "necessity" for, it is quite likely that its own brand may be in the decline stage notwithstanding the fact that the industry (product) is in the growth stage,

What are the characteristics of a four stage PLC as depicted in figure 8.2 ?

Introduction Stage: During the stage of introduction of a new brand/modified product, sales tend to be low. This is because majority of consumers, being what they generally are, do not have any high degree of awareness and are known, by and large, to be reluctant to quickly switch over to a "new product" if they are not highly dissatisfied with the brand they are presently using; only such of those consumers, who are not many in number, who, generally, are quick to "experiment" with new products and whose awareness level is relatively high, try out the new offer by the company. On account of the low sales level, profits are likely to be low or even negative. This is also the time when the competitors, like consumers, come to know of the new offer of the company and watch the response of the market to the new offer before initiating retaliatory strategy.

Growth Stage: Assuming the company's new offer does not die in infancy and has found customer awareness and acceptance, the sales graph rises slowly. It may register a steep rise in the case of fashion/fad items or during periods of temporary shortage or emergency. Demand for "face masks" rose rapidly throughout the world during April-May 2003 when the fear of Severe Acute Respiratory Syndrome (SARS) hit most countries. Similarly, during earthquakes, floods and other calamities, demand for medicines, clothing and building materials rises shai-ply. Barring the above exceptions, a "typical" growth in sales will be a slow growth. This is the stage in which sales will grow maximum, profits will touch peak levels and the market size will be the largest. In view of the foregoing three characteristics, competition will also be growing during this stage.

Maturity Stage: By now, all those who have found the company's offer acceptable, have started using the new product. Many rival companies have also started putting their strategies in place, trying to wean away the custoiners by their "better offers". Sales of the company are characterized by stagnation or, at best, a very slow growth. Though the market size is still the largest, profits will show a tendency to decline since the company may have to resort to price cutting on the one hand, and spend more on promotion, distribution, etc. on the other, to maintain the sales level.

Decline/Death Stage: If no action is initiated by the company to ensure maintenance/growth of level of sales, or if the action taken does not succeed, then the product sales start declining after some time since the majority of consumers, as they switched their loyalty from other companies' brands to this brand during the earlier stages, start switching their loyalty once again, this time in favour of the "better offers" made by other firms. There may still be some laggards favouring the company's product; those who were late in the beginning to accept the product generally are also late in dropping the product. Sales being low, other things being equal, profits also start declining during this stage and, at some point, may even turn negative forcing the company to discontinue production.

8.7 IMPLICATIONS OF PLC ON MARKETING STRATEGIES

What do all the above mean to a company? During the introduction stage, the company must deploy various techniques so that the product does not meet with early death. It should try to build up awareness among the target group about the "newness" of the product, its attributes etc. and provide attractive incentives to both consumers and distributors through "introductory offers" involving price discount and sales promotion. The company should spend rather heavily on promotion and target its strategy to "innovative" customers. Taking into account only price and promotion, four strategies are possible during the introduction stage. These are Rapid Skimming

(high price and high promotion level), Slow Skimming (high price and low promotion level), Rapid Penetration (low price and high promotion level) and Slow Penetration (low price and low level of promotion).

During the growth stage, the company should attempt to take maximum advantage of the rising demand. All activities in the company should be geared to take advantage of the demand growth. Under no circumstances production should be found wanting and orders should be met immediately. Logistics should be streamlined so that the product reaches the ultimate consumer with minimum time loss and at a place where he wants it. Promotion must ensure that brand insistence is built up and, though a loyal customer base may make a marginal price rise easy, complacency should not be allowed to set in, just because the sales volume is high. It should shift from product-awareness advertising to product-preference advertising. The prices tend to be lowered in the growth stage to attract the next level of price-sensitive buyers. In terms of product, product quality is improved, new product features are added and new models are introduced. It must also be remembered that success invites competition and the company should be ready with preemptive action to meet competitors' challenges.

It is during the maturity stage that the company should intensify its efforts to counter the problems posed by stagnating sales. Stepping up promotional efforts, particularly in terms of sales promotion directed both at the consumer and distributor, increased allocation to advertisement, rise in margins and other incentives to distributors, price cutting, discounts, etc. are some of the strategies normally adopted by majority of companies. Most importantly, this is the time when "life cycle stretching strategies" should be put into practice by the firm. "Repositioning" of the product in tune with the changed environment is one of the strategies adopted by some companies. For instance, most companies in cooking oil business have repositioned their products in recent years highlighting, to the health conscious consumer segment, the cholesterol free attribute of their product; condoms have been repositioned, the emphasis shifting from the original one of "family planning" to "safe sex". Marketers should, therefore, consider some of the following points to avoid or postpone the decline stage:

- i) improve product quality
- ii) add new product features resulting in extra benefits
- iii) find new uses or new user segments
- iv) reposition the product
- v) give incentives to distribution channels
- vi) expand distribution intensity
- vii) improve advertising and sales effort.

When it is reasonably certain that no successful life cycle stretching strategy can be put into practice or, the strategies attempted have not brought in the desired results, the company should think in terms of withdrawing from the market either partially or fully, so far as the present version of the product is concerned, at least momentarily. Since overall profits become low or even negative during this stage, the firm should undertake a detailed review of revenue and costs, segmentwise, and take a decision regarding total or partial withdrawal. This is not an easy decision to take but it must be remembered that "product elimination" is as much a part of product development as product introduction or modification is for, unsuccessful products only add to the company's losses.

What is the basic philosophy behind PLC? The philosophy is "anything that is born in this world must die one day"; "nothing is perfect and there is always scope for improvement". An enlightened company must shoot down its own product before the

competitor shoots its down; "a company must mess with success or, otherwise, success will mess with the company".

Check Your Progress B

- 1) Define "Product Life Cycle".
.....
.....
.....
.....
- 2) List four stages of Product Life Cycle.
.....
.....
.....
.....
- 3) Are the following statements correct or incorrect?
 - (i) Sales will rise faster, at the introduction stage, as compared to other stages, in the case of most products.
 - (ii) Profit levels will reach a peak, in the case of most products, at the growth stage.
 - (iii) Products which are considered necessities do not go through a life cycle
 - (iv) Brand life cycle and industry life cycle will definitely follow the same pattern.
 - (v) Product elimination is opposite of product development.

8.8 LET US SUM UP

Product decisions are more basic than decisions in respect of other marketing variables, When a company claims that it has introduced, in the market, a "new product" it does not necessarily mean that the product is a totally innovative one. A "new product" may mean an existing product with minor or major changes or it may be a totally new one in the sense that the market has not been exposed to it earlier. What is important is, the consumer segment should feel that no close substitute exists for the product at a particular point of time.

Companies go in for new products because of the changes in environment – political, social, cultural, economic, competitive, technological, etc. Changes in quality, features, style, adoptive replacement and introduction of substitute products are all part of the exercise to impart "newness" to the product.

Product Development (PD) exercise is answer to the company's search to impart newness to the product. The exercise begins with generation of ideas and follows a course comprising idea screening, concept development, business analysis, engineering and marketing strategy development, test marketing and commercialization. In the entire exercise, it must be ensured that all activities towards product development run concurrently and there is healthy interrelationship among various departments of the firm. PD should be considered a continuous exercise with no beginning or end. The risks in PD must also be kept in view.

Though, basically, failure of a new product can be traced to the company's offer not meeting consumer requirements, a combination of factors relating to all marketing

variables and environmental changes, which have not been provided for, contribute to product failures.

Most of the products pass through a life cycle comprising, introduction, growth, maturity and decline stages whether they are necessities, high unit value items, low unit value items or fad items. A company should accept this fact and not only formulate strategies appropriate to each stage of the product life cycle but attempt to find out ways and means of stretching the life cycle of the product as much as possible. If it does not succeed in stretching the life cycle beyond a point and finds sales decline setting in, it should not hesitate to eliminate the product.

8.9 KEY WORDS

New Product: A product that is considered new by the target user segment.

Product Development: The changes that are brought about in a product in order to make it more customer friendly.

Product Life Cycle: The stages through which a product goes through from the time it is introduced in a market till its elimination from the market.

Repositioning: Creating a different image for the product among customers in order to arrest the decline in/improve the market share.

Test Marketing: Testing the company's offer in a sample population under conditions similar to those likely to prevail during commercial sales.

Target Segment: The group of people which a company considers as constituting the market for its offer.

8.10 ANSWERS TO CHECK YOUR PROGRESS

- A. 1) i) To face competition which may offer better products to the consumers;
ii) To take advantage of the latest technology; and
iii) To meet the changing preferences of the consumers.
- 2) a) Idea generation; b) Idea screening; c) Concept development; d) Business analysis; e) Engineering and marketing strategy development; f) Test marketing; g) Commercialisation
- 3) i) Incorrect ii) Incorrect iii) Incorrect: iv) Correct v) Incorrect
- B. 1) Product life cycle refers to the stages through which a product passes from the time it is introduced in a market till its eventual elimination from the market.
- 2) a) Introduction; b) Growth; c) Maturity; d) Decline
- 3) i) Incorrect ii) Correct iii) Incorrect iv) Incorrect v) Incorrect

8.11 TERMINAL QUESTIONS

- 1) What do you understand by the term Product Innovation? Explain the need for companies to go in for new products.
- 2) Explain the various stages of Product Development Process giving suitable examples.
- 3) Discuss the features responsible for failure of new products.

Product Decisions

- 4) What are the risks associated with test marketing? How can a company guard against the risks?
- 5) Give at least two examples of products that, you consider, are passing through
 - a) Introductory Stage
 - b) Growth Stage
 - c) Decline Stage.Give reasons for your answer.
- 6) Discuss the life cycle stretching strategies adopted in the case of any one product when its sales started declining.
- 7) Describe the various strategies adopted by companies at different stages of the product life cycle.