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PRODUCT PLANNING AND NEW PRODUCT DEVELOPMENT

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The first most important element in developing a product strategy is a thorough understanding of a company's product, product levels, and product classifications. Different types of products require different kinds of marketing strategies. Product attribute decisions, such as product quality, style, and design, add value to the product, attract customers' attention, and give the product a strong competitive advantage. As part of the overall co-ordinated product strategy, branding, packaging, labelling, and product-support services decisions must be made in conjunction with the product features.

Once we have looked at product strategy decisions for individual products, product line decisions and product mix will be analysed. These decisions include product line length, features, and modernisation. The product mix will describe the set of product lines and items offered to customers.

A *product* is anything that can be offered to a market for attention, acquisition, use, or consumption that might satisfy a want or need. A product may be a physical good, a service, or a blend of both. (See figure 1) [3, p. 219].

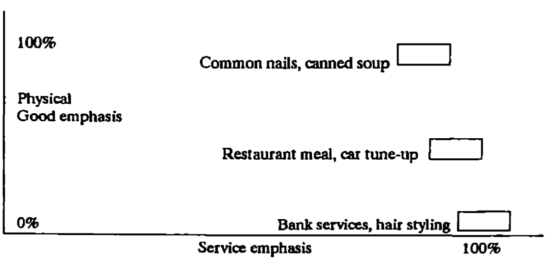

Figure 1. Possible Blends of Physical Goods and Services in a Product

Although most products are physical products (cars, clothes, furniture), services, persons (political candidates), places, organisations, and ideas are also products. It is much better to think of a product in terms of the needs it satisfies. If the objective of a firm is to satisfy customer needs, the firm must recognise that service can be part of its product or that the service alone may be the product and must be provided as part of a total marketing mix.

The idea of *product* as potential customer satisfaction or benefit is very important, especially in competitive markets. Many people who are trained in the production side of business often get wrapped up in the technical details. They are important to them, but companies have little effect on the way most customers view the products. Most customers just want a product that satisfies their needs and provides benefits.

Products can be classified into two broad groups: consumer goods and industrial goods. *Consumer goods* are defined as those which are bought by final consumers for personal consumption. Industrial goods are goods bought by individuals and organisations for further processing or use in conducting a business [2, p. 262–263].

Marketers usually classify consumer goods based on consumer shopping habits. Consumer goods include: convenience goods; shopping goods; speciality goods; unsought goods. *Industrial goods* are classified according to how they enter the production process and according to they cost: materials and part; capital items; supplies and services.

Another area in product planning that needs to be considered is consumer behaviour in relation to product classifications. Different classes of products have different consumer behaviours. For example, consumer behaviour for convenience goods, such as magazines and food items, is low effort and has low consumer involvement. On the other hand, if a consumer is looking for a heterogeneous product, such as furniture, the buying behaviour will be based on extensive problem-solving. For industrial products, consumers will be involved in a different buying situation. For instance, if a consumer is involved in purchasing components, such as materials or supplies, multiple buying influence will be quite high (final decisions will be influenced by top management).

Product managers and marketers should understand three levels of the product. It is more than a set of tangible features. When developing a product, it is imperative that one understand the meaning of the core, actual, and augmented product (see figure 2). Once the core consumer needs are identified, the actual product must be designed in order to find ways to augment the product and create the bundle of benefits which will satisfy consumers [2, p. 261].

1. CORE PRODUCT

CORE BENEFIT OR SERVICE

2. ACTUAL PRODUCT

PACKAGING, BRAND NAME, QUALITY, STYLING

3. AUGMENTED PRODUCT

DELIVERY AND CREDIT, WARRANTY, AFTER - SALE SERVICE, INSTALLATIONS

Figure 2. Levels of Product

Product attribute decisions are very significant when designing a new product. Product quality standards in relation to durability, reliability, and ease of operation play a vital role in terms of consumers' perceptions about that product. The product's look and feel should communicate its quality level. It can be achieved by a high price, brand name, packaging, and promotion.

The next element in product strategy is defining product features which must be assessed in relation to providing a value to a customer versus the company's cost. For example, product features that customers value little in regards to cost should be dropped. The product design which also incorporates product style can easily attract consumer attention, improve product performance, cut production cost, and gain a competitive edge in the market.

An important part of the product is *branding*. Branding normally requires a long-term investment for brand image building, consumer awareness, and market acceptance. If a brand name is strong, consumers will develop loyalty towards these brands and will be reluctant to accept substitutes. Therefore, every company should take care in developing branding strategies. Questions such as "Why does a company need to have brands?", "Who benefits from branding?", "How many brands should be in the product range?" must be asked before finalizing brand names. Companies should also consider the characteristics of a good brand name. These include: short and simple wording; the word is easy to spell and read; the word is easy to recognise, remember and pronounce; adaptability of packaging, labelling, and advertising; availability to use in relation to legality.

The next two steps in product planning are *packaging* and *labelling*. Packaging has become a very important marketing tool in the overall marketing strategy. R. Kotler suggests the following benefits of effective packaging: instant consumer recognition of the brand; competitive advantage; product protection; product positioning [2, p. 276].

Labelling is also part of packaging because it includes printed information appearing on packaging. Usually, labelling provides three main production functions: identification; description; promotion.

All these three functions must support the overall branding strategy with an aim to have a product that provides the bugle of benefits to a consumer.

Product strategy is not only about packaging, branding, labelling, and services of individual products. The product strategy also addresses an issue of building a product line and its marketing strategy. A *product line* is a set of individual products that are closely related [3, p. 221]. It means that the product line encompasses products with the same price points, features, and distribution channels.

Product line decisions deal with the following questions: 1. How long should the product line be? 2. What type of product line stretch needs to be established? 3. Should the company add more products within the present range? 4. Should the line be modernised? 5. Which products must be selected to feature the product line?

According to Kotler [2, p. 281] the product line can be lengthened in two ways: stretching and filing. Product line stretching occurs when a company lengthens its product line beyond its current range. P. Kotler identifies three types of product line stretching decisions: downward stretch; upward stretch; two-way stretch.

The downward stretch decision is used when companies add a low-end product to plug a market hole that would otherwise attract a new competitor. By making downward stretch, however companies can effect the image of the higher end products, create disagreements with dealers, and even provoke competitors to attack the other end of the market. The upward stretch can be more attractive due to higher possible margins at the higher end, adding prestige to the current product range, and capturing a new market. The two-way stretch is when companies in the middle range of the market decide to stretch their lines in both directions. The main risk of this strategy is that customers can get confused with a variety of products which, in reality, could be very similar.

A *product mix* is the set of all product lines and items that a particular seller offers for sale to buyers [2, p. 283]. A company's product mix consist of the following elements: Breadth – the total number of product lines; length – the total number of product items; depth – the number of versions offered to each product in the line; consistency – refers to how closely related the various product lines are in regards to end– using, production requirements, distribution, etc.

By understanding breadth, depth, length, and consistency of the product mix, companies can increase their business in a few different ways: adding new lines; lengthening existing lines; adding more product versions; providing more consistency in distribution, production, etc.

Finally, it is imperative to understand that product strategy requires co-ordinated decisions on product items, product lines, and product mix. Most companies produce not a single product, but a product line. Therefore, individual product-management decisions on branding, packaging, labelling, and service are not sufficient when designing an overall product strategy for a company. Therefore, product line and product mix decisions must be considered and incorporated into the product strategy. All these decisions must be made with an understanding of consumer wants, competitors' strategies, and the increasing role of public policy on product quality standards, warranties, and patents.

Because of the growing competition in the market and changing consumer needs and wants, companies are forced to develop new products. Therefore, new product planning is not an optional matter; it is a requirement to survive in today's markets. New product planning begins with a decision on how to obtain a new product. It could be through acquisition – buying a whole company, a patent, or a licence to produce someone else's product-or through new product development by researching the market.

A *new product* is one that is new in any way concerning the company [3, p. 263]. A new product idea can come from customers' feedback, competitors, research findings, or old product's repositioning. Although new product development sounds very exciting, it is not easy. It requires time, effort, understanding of the market, and a vision for future shifts in buyer behaviour. According to statistics, the overall success rate for new products is only 65% [2, p. 296].

The following reasons for new product failure were identified by P. Kotler:

POOR MATCH WITH COMPANY CAPABILITIES
MARKET SEGMENTS TOO SMALL
COMPETITIVE RESPONSE
FORECASTING ERRORS
NO SUPPORT FROM THE DISTRIBUTION CHANNELS
POOR POSITIONING
LACKS IN QUALITY
CHANGES IN CONSUMER TASTES
ORGANISATIONAL PROBLEMS [2, p. 297].

The most important issue for product developers is to weigh pros and cons of a new product. Thus, the solution lies in strong new product planning and development. The new product development process for finding and growing new products consists of 8 major steps:

1. Idea generation.
2. Screening.
3. Concept development and testing.
4 Marketing strategy.
5. Business analysis.
6. Production development.
7. Test marketing.
8. Commercialisation [2, p. 298].

The other approach to the process of new product development was described by John Ward:

1. Collect or originate new ideas.
2. Carry out a business analysis of those ideas which pass through the screen.
3. Check the technical and manufacturing feasibility of ideas.
4. Test the market [5, p. 178].

Most marketing text books identify *idea generation* as the first step in the process of product development. The search for new ideas should be systematic and have a formal procedure. The following sources of idea generation are identified by P. Kotler, J. Ward and J. McCarthy:

Internal sources – a company's sales force, internal reports, etc.
Customers – info could be obtained from surveys.
Competitors – analysis of competitors' products.
Distributors and suppliers.
Advertising agencies, associations, friends, overseas markets.

The next step in product development is *idea screening*. Screening involves evaluating the new ideas. Ideally, a company should be able to match its recources to possible opportunities which eventually lead to a competitive advantage.

The third step is *concept development* and *testing*. For example, in terms of consumers, a product concept should provide some attractive features and benefits, such as usage, design, price, fashion, purpose, and the other elements of the product concept. It must be remembered that customers do not buy a product idea, they buy a product *concept*.

Once a product concept is defined, it needs to be tested with a potential group of target consumers. Usually, concept testing is done by asking customers to answer the survey questions in relation to a new product. If the concept is accepted by customers, the next step is *marketing strategy development*.

The marketing strategy statement has to include the target market, positioning, sales goals, and market share goals. After designing the marketing strategy, an evaluation of business attractiveness, including business analysis, review of sales, costs, profit projections, and a company's long – term objectives, must be done. Only then can the product concept move into actual product development.

The major concern in product development is making sure that new products are tested. The basic purpose of test marketing is to test the product itself in a real machete situation. Some reasons for market testing are, to get, an evaluation of product performance, an assessment of distribution channels, a reaction from competition, and to reduce the risk for the future, and to educate / train the sales staff [5, p. 207]. A product idea that survives this far can finally be placed on the market. This is the final step in the product development process.

Developing new products should be a total company effort. The top management should be very encouraging and supportive of new idea generation and final product development. Other departments, such as research and development, production, promotions, purchasing and finance, must be systematically involved in the process of product development. Without an integrated effort in this process, new product development may fail. Sometimes, new product failure is due to rushed decisions and some incorrect steps in the process.

The product life cycle can be the key to successful and profitable product management, from the introduction of new products to the profitable disposal of obsolete products. Once a new product is launched, the course of a product's sales and profits during its lifetime is very important [1, p. 444].

As P. Kotler and B. Enis state, the sales and profit patterns in a typical product life cycle pass five stages: product development, introduction, growth, maturity, and decline (see figure 3).

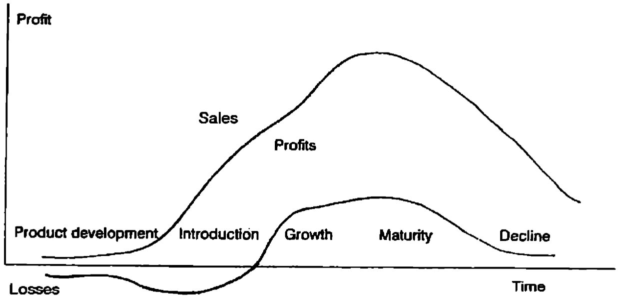

Figure 3. Five Stages of the Product Life Cycle

1. *Product development stage* is when the company finds and develops a new product idea.

2. *Introduction* is a period of slow sales growth.

3. *Growth* is a period when the market accepts a product. This stage features growing *profits*.

4. *Maturity* is a slow period of sales growth featuring profit stability and product acceptance by potential buyers.

5. *Decline* is a period of declining sales and significant drop in profit.

The product life cycle plays a very important role in designing a marketing strategy, forecasting, and promotions. It is not easy, however to identify product life cycles because of various factors influencing each stage. The strategy in most cases is both a course and a result.

D. Rachman suggests the following marketing strategy over the life cycle (see Table below)

T a b l e . **Marketing Strategy Over the Life Cycle (4, p. 268)**

	Price	Promotion	Place	Product changes
Introduction	High, to recover development costs; or low to capture large market share	Heavy, emphasizing product benefits	Many outlets	None
Growth	As high as possible	Heavy, emphasis on brand name	Additional outlets	New sizes, packaging styling features, extra service
Maturity	Lower to draw remaining potential customers	Heavy, emphasis on superiority over competition	Additional outlets	New uses, new users, modification
Decline	Low	Moderate promotion	Decreasing number of outlets	Major modifications

P. Kotler (2, p. 308–309) identifies a number of different types of product life cycles demonstrating the promotional strategy's impact on each product life cycle stage.

As can be seen, from figure 4, all shapes differ quite significantly. The main influencing forces of this are promotional strategy, discovery of new customers, and the popularity of some new product's characteristics. In addition, marketers must understand and predict the so-called style, fashion, and fad of the product life cycle. A *style* is defined as a basic and distinctive mode of expression. For example, style is quite common in clothing industry. A style normally features several interests in a product. The next form of the product life cycle is *fashion*. It is defined as a currently accepted or popular style in a given field. Fashions tend to grow slowly, remain popular for a while, and decline slowly.The last form is defined as *fads* when fashions peak early and decline fast. Their acceptance cycle is short and attracts only a limited number of customers.

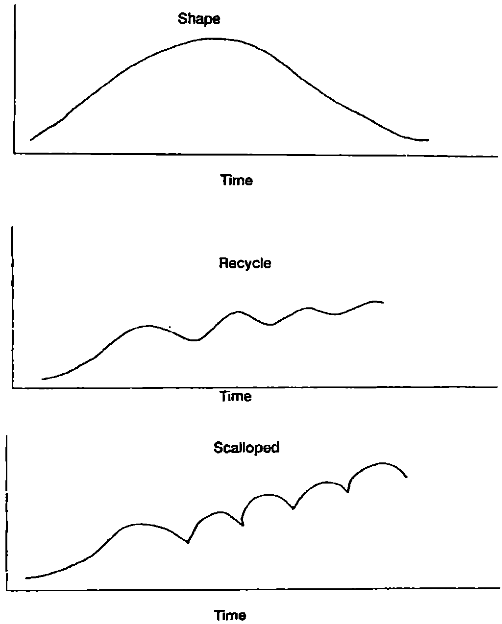

Figure 4

BIBLIOGRAPHY

1. Enis Ben; Keith Cox; Marketing Classics. A Selection Of Influential Articles, 6th Edition, Allyn & Bacon Inc, Boston, 1988.

2. Kotler Philips; Chandler, Peter G Brown; Adam Stewart; Marketing In Australia & New Zealand, 3rd Edition, Prentice Hall, Sydney, 1994.

3. Mccarthy, Jerome; Pascale G Quester; Basic Marketing. A Managerial Approach, 1st Edition, Irwin, 1994.

4. Rachman, David; Marketing Today, 2nd Edition, The Drysden Press, Chicago, 1988.

5. Ward, John; Profitable Product Management; Heinemann, London, 1985.

GAMYBOS PLANAVIMAS IR NAUJOS PRODUKCIJOS GAMYBOS PLĖTOTĖ

Santrauka

Svarbiausias dalykas, kurį turi suvokti gamybinės kompanijos vadovai, yra jų gaminamos produkcijos gamybos lygiai ir klasifikavimas. Kadangi dabartinės kompanijos dažniausiai gamina labai įvairialypę produkciją, tai produkcijai reikalinga skirtinga marketingo strategija.

Prekė (produktas) turi tenkinti vartotojų poreikius. Be paklausos ji netenka savo prasmės. Nesvarbu, kokio lygio ta produkcija: ar vartojimo prekės ar gamybinės prekės, paslaugos ar intelektualinė produkcija.

Dabartinėje, labai konkurentabilioje rinkoje, didelę reikšmę įgyja ir tos produkcijos pateikimo rinkai būdas: reklama, įpakavimas, geras estetinis vaizdas ir produkcijos vardas. Visa tai vadinama marketingu ir produkto įstūmimu į rinką.