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## **The strategies for product life cycle extension**

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Faculty of Business, Management and Economics

**The strategies for product life cycle extension**  
Bachelor of Science in Marketing and Sales

Alban Bunjaku

May/2011  
Pristine



Faculty of Business, Management and Economics

Bachelor Thesis  
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**The strategies for product life cycle extension**

Supervisor: Univ. Prof.Dr. Edmond Hajrizi

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First and foremost I would like to thank the Almighty God for giving me the opportunity to study and come to the situation of writing this Thesis, for which I also try to be thankful.

For the last three months I have periodically been working in my theses. Difficulties and challenges appeared through this process but the end stage proved satisfaction for what I had been doing during this period of time. It was more or less a new experience searching and reading about Product Life Cycle. From the start to the end I challenged myself to learn something new, which I hope to have achieved.

I own my deepest gratitude to my supervisor, Univ. Prof. Dr. Edmond Hajrizi, whose encouragement, guidance and support from the initial to the final level enabled me write this Bachelor Thesis.

Lastly, I offer my respect and regards to all those who supported me in any way during the completion of the Thesis writing.

### Abstract

This thesis contains a study of what and which are strategies that a company should use to extend the life of the product.

Product Life Cycle (PLC) is process which is used by companies to measure their product life in different stages of PLC. In the next chapters I will explain how this process work, its phases and most important how the companies try to make strategies in order to be a step ahead from competitors.

PLC is a small part of Marketing but I would say that it is one of the most important part and process for a company. Most of the time, PLC determine directly revenues for a company, because if a product stays for a long time in the growth stage than sales will continue to increase too. But if product has a short life in the growth and majority stage, than the product will go in the decline stage, which means sales and revenue will stop.

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### INTRODUCTION

In order to be in step with competitors, companies develop new products and services; replace their current products to satisfy costumers' needs. But the risk to innovate or to put new product is high, it can be fail. In order to avoid that, companies should have strong planning and a systematic new-product development process. The new product development process consists of eight stages: idea generation, idea screening, concept development and testing, marketing strategy development, business analysis, product development, test marketing, and commercialization [1].

Products and markets have life cycle that should change strategies and ideas over time. Every new product or services passes through four life stages, which are: introduction, growth, majority and decline. Some of products has a long life cycle some of, very short, it depends on the products, promotion, price, and a lot other indicators. Some of products have very and secure in growth stage but in majority life is too short and most of the time fail. The best stage and mostly wanted from the sellers is the majority stage. In this stage sells are in top and the product itself. So the success of the product or service is depending on this stage. Now we will talk for every stage in generally [1].

Introduction stage-In this stage product is pushed into distribution by slow growth and minimal profits. In this stage companies should decide between four strategies: rapid skimming, slow skimming, rapid penetration or slow penetration. After all of this were applied and product had succeeded, than product moves to the growth stage[2].

Growth stage- In this stage product has a rapid growth in sales and profit increases. Most of the companies in this stage attempt to improve the product, enter new market segments and distribution channels, and reduce its prices slightly.

Majority stage-In these stage sales and profits stabilize. Company managers tray deferent strategies to renew sales growth [2].



Decline stage-This is the end stage of every product life. In this stage companies try to identify the weaknesses of product and try to eliminate or minimize till the last days of that product or service [2].

### **1.1 Overall purpose and research questions**

The main purpose of this paper is to show the strategies that can be used by companies in order to extend product life cycle.

In this study I will analyze some of the strategies that have been used by different companies to maintain their products as long as they can in the market.

#### **RQ1. How to extend the life of a product?**

The extension of the product life it is very important for the company, because all companies try to cover their cost by selling. If the product stays for a long time in the growth stage, than it is very positive for the company, because the company it does not have to introduce another product, to replace the first one.

## 2. LITERATURE REVIEW

### 2.1 Product Life Cycle

Product life cycle it is focused only in one product and every product has a life cycle. Depending on how long a product stays in the market, that is their life. It is in the interest of the company that a product has long and profitability life. Here it is a diagram that shows Product Life Cycle in stages [3].

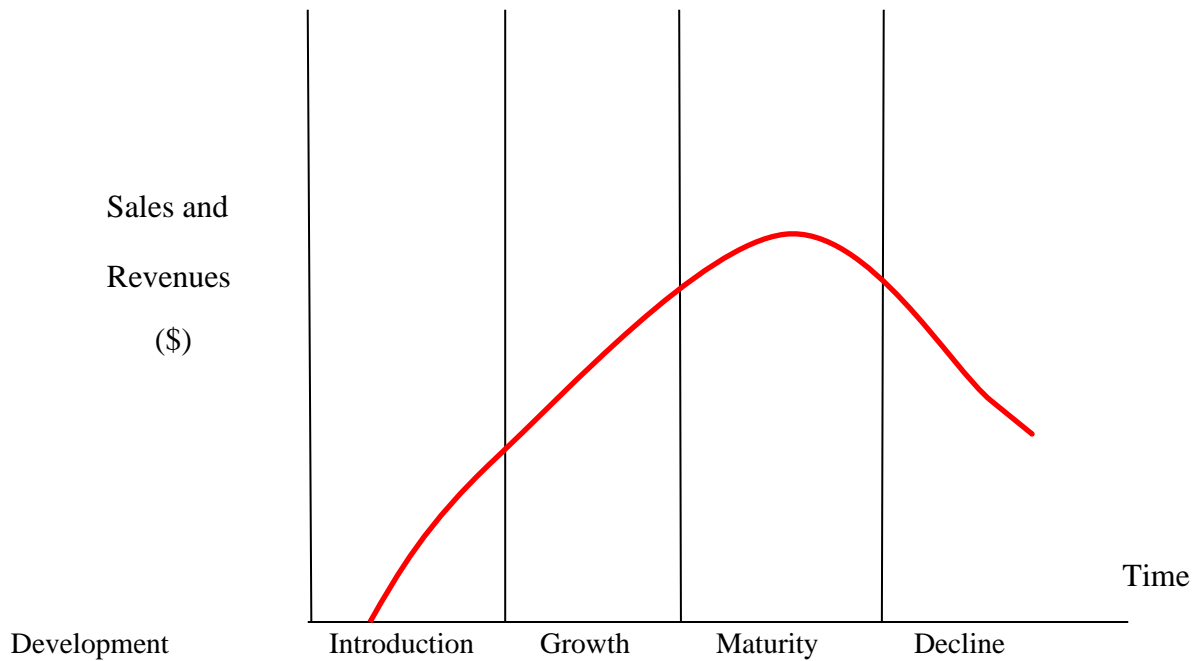


Fig. 2.1. Product life cycle [3]

Some products are introduced and growth very quickly, has brief maturity and decline rapidly e.g. fashion and toils. Some other products have very long period of maturity, which have been around for years but steel are in maturity stage e.g. Coca cola [3].

The process of the product life cycle depends on some factors such as:

- Type of Product
- Levels of Competition
- Marketing support
- Customer Tastes [3].

By knowing in which stage is their product, firms can formulate better marketing plan. In order, to have life cycle a product should declare four things:

- Products have a limited life.
- Product sales pass through distinct stages, each posing different challenges to the seller.
- Product profits rise and fall at different stages of the product life cycle.
- Products require different marketing, financial, manufacturing, purchasing and personnel strategies in the different stages of life cycle. [2].

### **2.2. Product-Category, Product-Form, and Brand Life Cycle**

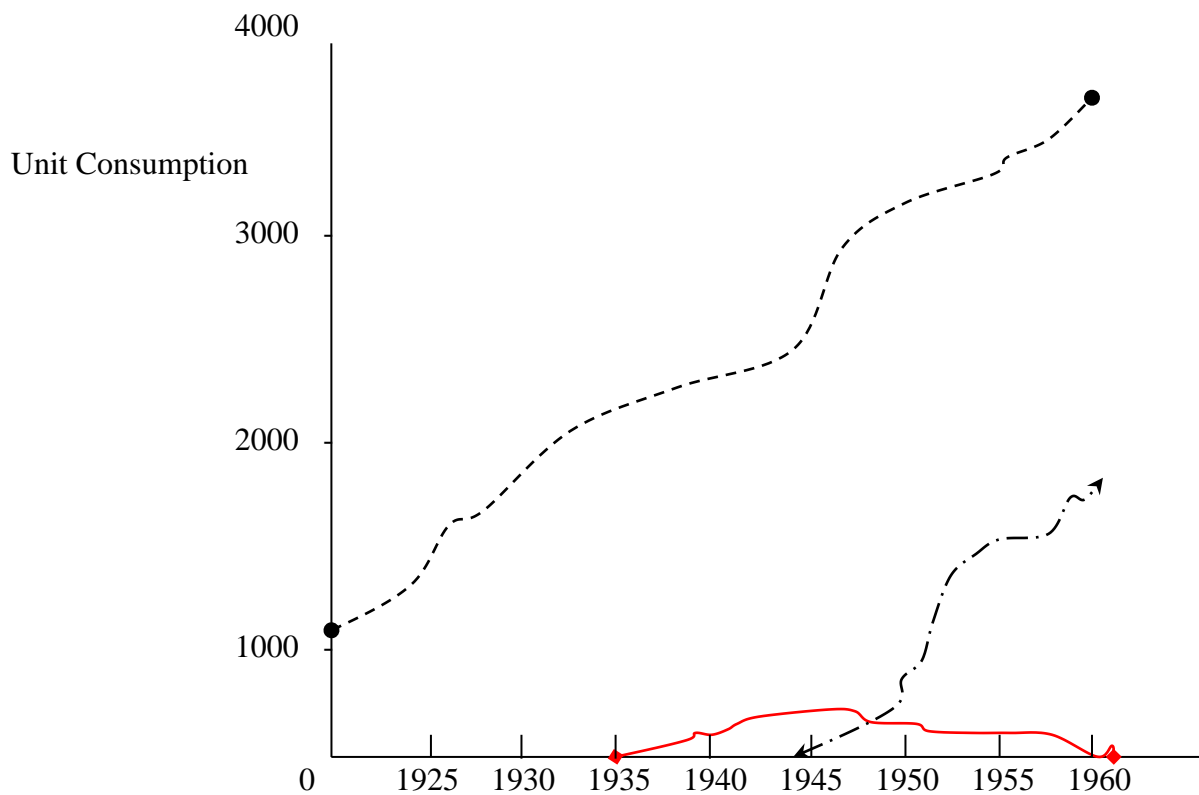
Product Life Cycle sometimes can be used to analyze a product category (mobile phone), a product form (touch screen) and a product brand (I phone). (See figure 2.1.)

The PLC degree has a different degree of applicability in each case:

- Product categories have the longest life cycles. The sales of many product categories stay in the mature stage for an indefinite duration, since they are highly population related. Some major product categories-cigars, coffee, movies seem to have entered the decline stage of PLC. Meanwhile some other products such as: telephones, computers are in the growth stage [2].
- Product forms tend to exhibit the standard PLC histories more faithfully than to product categories. Thus manual typewriters went through the stages of introduction, growth,

majority and decline: now electric typewriters are showing a similar history as electronic typewriters starts replacing them [2].

-Product Brand tends to show the shortest Product Life Cycle history. According to a study it was found that in the life expectancy of a new brand was approximately three years, and in the near future it will tend to growing up gradually. At the same time some very old brand are still strong, such as (Arm & Hammer Baking Soda, Ivory Soap) [2].



Number of mobile phones per 1000\$ of consumption  
Fig.2.2. Product-Category, Product-Form, and Brand Life Cycle [2]

### 2.3. Product Life Cycle Phases

#### 2.3.1 Development

During development the product costs a lot of money for the firm in terms of design, production and advanced promotion. But the product won't be bringing in any money because it is not yet ready for sale. This can cause cash flow problems, because the business finds that more money is going out than is coming in [3].

Established firms will use finance from other products to support a new one, but new firms might not have this ability. [3]

#### 2.3.2 Introduction

In the introduction stage the product is new in the market and as a result, sales may start slowly and need a large campaign of promotions to create awareness, to encourage sales, and to develop an image. This is the time when firms spend a lot of money for a product and may cause lot problems in the cash flow for the firm. This problem of cash flow is for the most of the firms, because they tend to find unlimited finance for their products. One other problem may be that if the product was not promoted well enough, they will not be able use the revenue to cover their costs.

During introduction there is always likely to be an underutilization of the capacity, as there is not the demand to produce with full capacity. [3]

There are only a few competitors, and they produce basic versions of the product, since the market is not ready for product refinement. The firms focus their selling on those buyers who are the readiest to buy, usually groups with higher incomes. Prices tend to be high because costs are high due to relatively low output rates, technological problems in production may have not yet been fully mastered and high margins are required to support the heavy promotional expenditures which are necessary to achieve growth. [2]

High prices tend to attract competitors eager to enter the market because they see the opportunity for profit. To discourage competitive entry, a company can price low, referred to as penetration pricing. This pricing strategy helps build unit volume, but company must closely monitor costs [2].

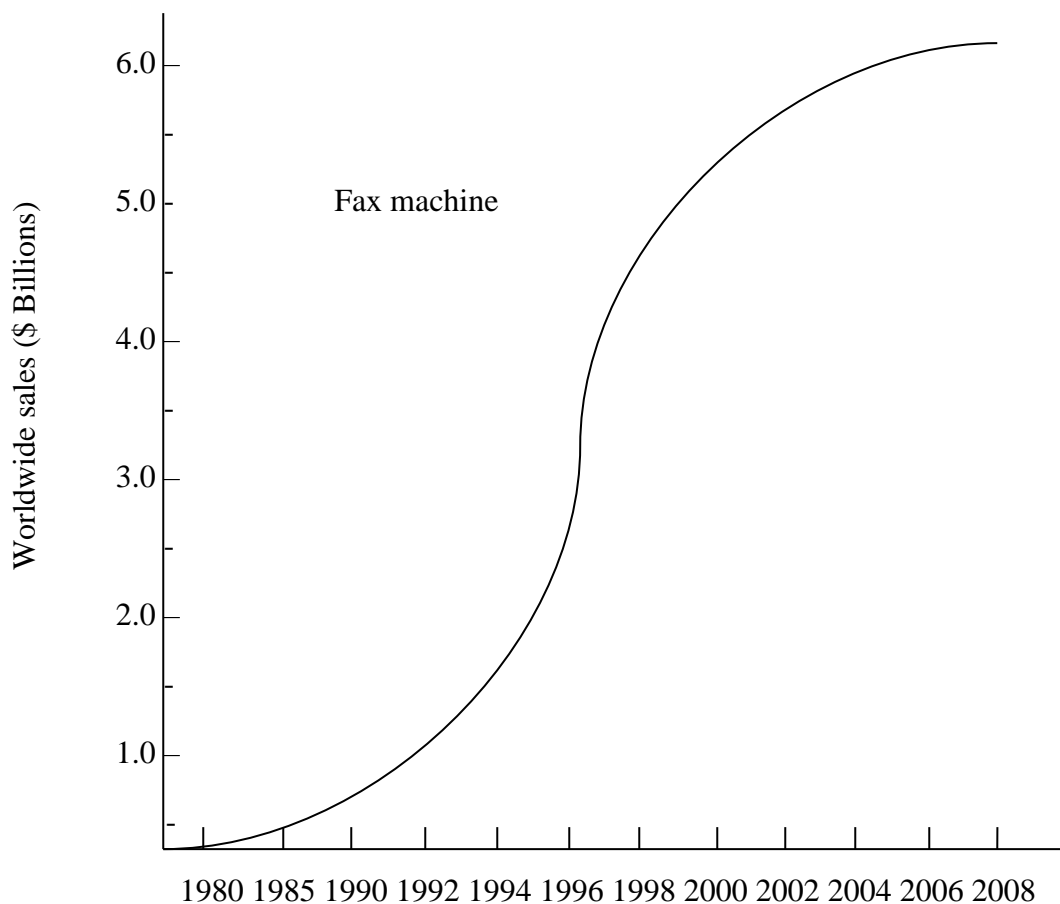


Fig. 2.3. *PLC* for the stand-alone fax machine for business use: 1980-2008 [2]

In the figure 2.3 charts the stand-alone fax machine product life cycle for business use in the United States from the early 1980s through 2008. As shown, sales grew slowly in 1980s

and 1985 after Xerox pioneered the first portable fax machine that sent and received documents. Fax machines were originally sold direct to businesses through company salespeople and were premium priced. [4]

Several product classes are now in the introductory stage of the product life cycle. These include flat-panel high-definition televisions and hybrid automobiles. [2]

2.3.2.1 Marketing Strategies in the Introduction Stage

Depend from the marketing management what level want to set for each marketing variable that are high or low, like: price, promotion, distribution and quality of the product. Considering only price and promotion management can use one of the strategies that are shown in the figure 2.4

		Promotion	
		High	Low
Price	High	Rapid-skimming Strategy	Slow-skimming strategy
	Low	Rapid-penetration strategy	Slow-penetration strategy

Fig 2.4 Four Introductory Marketing Strategies [2]

*Rapid-skimming* strategy consists of launching the new product at a high price and a high promotion level. In order to recover as grosser per unit as possible, the firm charge high price. They want to convince the market of the product’s merits at the high price by

heavily spends in the promotion. This strategy may be successful under the following assumptions: a large part of the potential market is unaware of the product, those who become aware are eager to have the product and able to pay every price, firm faces potential competition and wants to build up preference [2].

*Slow-skimming* is a strategy when firms launch the products with high price and low promotion. The purpose of this strategy is to increase revenue to cover the costs and low level of promotion to keep marketing expenses down. This strategy can be applied when: the market is limited in size, most of the market is aware for the product, buyers are able to pay high price and potential competition is no imminent [4].

*Rapid-penetration* this strategy is the opposite of slow-skimming strategy, here firms tend to have low prices and spending heavily on promotion. With this strategy firms want to have the fastest market penetration and the largest market share. This strategy is possible when: the market is large, the market is unaware of the product, and most buyers are price sensitive, there is a strong potential competition and the costs of the company fall with the scale of production [2].

*Slow-penetration* is the strategy when firms launch the product with low price and low level of promotion. This low price will make easy for the product to be accepted from the market and low level of the promotion will minimize marketing costs and realize more net profit. This strategy is successful when: the market is large, market is price sensitive, the market is aware for the product and there is some potential competition [2].

The company, especially the market pioneer must not choose one of these strategies arbitrarily; rather the strategy must be carefully in the first step in the grand plan for life-cycle marketing. If a pioneer chooses its initial strategy to make a "killing", it will sacrifice the long-run revenue for short-run gain. The pioneer should analyze all kind of strategies because he could not enter in all of them. The pioneer should analyze the profit potential of each market singly and then decide what strategy should use [3].



### 2.3.3. Growth Stage

In the Growth stage sales has a rapid climb in the market. The early costumers like the product and middle-majority consumers start to like it. In the market enter new competitors attracted for large scale production and profit. They introduce new product features and this expands the market. The increased number of competitors leads to an increased number of distribution outlets, and factory sales jump just to fill the distribution pipeline [1].

The sales will rise and if it is gain enough revenue to cover the costs than it is possible to made profit. As sales increase the firm will continue to produce more and more items and will be making better use of its capacity. This means the firm will operate more efficiently, which could bring unit costs down because costs are spread over more units [1].

Prices remain where they are or fall only slightly insofar as demand is increasing quite rapidly. Companies maintain their promotional expenditures at the same or at a slightly raised level to meet competition and continue educating the market. Sales rise much faster, causing a decline in the promotion sales ratio [4].

Profits increase during this stage as promotion costs are spread over a larger volume and unit manufacturing costs fall faster than price declines owing to the “experience curve” effect [4].

The rate of growth eventually changes from an accelerating rate to a decelerating rate. Firms have to watch for the onset of the decelerating rate in order to prepare new strategies [4]

#### 2.3.3.1. Marketing Strategies in the Growth Stage

In this stage firms uses different strategies to make market growth as long as possible:

- The firm improves product quality and adds new product features and improving styling.
- The firm adds new models and flanker products.

- It enters new market segments.
- It enters new distribution channels.
- It shifts some advertising from building product awareness to bringing about product conviction and purchase.
- It lowers prices at the right time to attract the next layer of price-sensitive buyers [2].

The firm that apply these market expand strategies will be more competitive and good position in the market share. But this improvement comes at additional cost. The firm in the growth stage faces a trade-off between high market share and high current profit. By spending a lot of money on product improvement, promotion, and distribution it can capture a dominant position. It forgoes maximum current profit in the hope of making even greater profits in the next stage [2].

### **2.3.4 Maturity Stage**

At this stages product's rate of sale growth will slow down, and the product will enter a stage of relative maturity. This stage normally lasts longer than the previous stages, and it poses formidable challenges to marketing management. Most products are in the maturity stage of the life cycle, and therefore most of marketing management deals with the mature product [2].

This does not mean that the firm should stop marketing activity and promotion will still be needed that remind costumers why product is so good. Often firm the revenue from maturity products use to support products in the development stage [3].

The maturity stage can be divided into three phases. In the first phase, growth maturity, the sales-growth rate starts to decline. There are no new distribution channels to fill, although some laggard buyers still enter the market. In the second phase, stable maturity, sales become level on a per capita basis because of market saturation. Most potential consumers have tried the product, and future sales are governed by population growth and replacement demand. In the third phase, decaying maturity, the absolute level

of sales now starts to decline, and customers start moving toward other products and substitutes [1].

In the maturity stage firm try to modify the market, product and marketing mix.

Modifying the market, the company tries to increase the consumption of their current product. Managers try to find ways to increase the usage among present customers.

Modifying the product is when companies change characteristics of the product such as quality, features, or style to attract new users and to inspire more usage. It might improve the product's quality and performance, durability, reliability, speed, taste. Or it might add new features that expand the product's usefulness, safety, or convenience. For example Sony keeps adding new styles for its TVs and laptops. The company can improve the product's styling and attractiveness [1].

Modifying the marketing mix, try to improve sales by changing one or more marketing-mix elements. In order to attract new users and competitors' customers they cut or reduce prices. They can launch a better advertising campaign or use aggressive promotions, trade deals, cent-off promotions, premiums and contents. The company can also move into larger market channels, using mass merchandisers, if these channels are growing. Finally company can offer new or improved services to buyers [4].

### 2.3.4.1 Marketing Strategies in the Mature Stage

Some of the companies give up in the maturity products, because they think that nothing can be done anymore. So some companies save their money to finance products in the development stage. This ignores the low success rate of new products and the high potential that many old products still have. Many industries widely thought by the Japanese, who found ways to offer new values to customers. Seemingly moribund brands like Jell-O, Oval tine, and Arm & Hammer baking soda have had major sales revivals several times, through the exercise of marketing imagination. Marketing managers should not ignore or passively defend aging or "dog-eared" products. A good offense is the best defense. Marketers should systematically consider strategies of market, product, and marketing-mix modification [2].

Market Modification-The companies should seek to expand the market for its brand by working with the two factors that make up sales volume:

$$\text{Volume} = \text{Number of brand users} \times \text{Usage rate per user}^1$$

We will examine each factor in turn.

The company can try to expand the number of brand users in three ways:

-Convert nonusers. The company can try to convert nonusers into users of the product category. For example, the key of the growth of air-freight service is the constant search for new users to whom air carriers can demonstrate the benefits of using air freight over ground transportation [2].

-Enter new market segments. The company can try to enter new market segments-geographic, demographic and so on-that use product but not the brand. For example, Johnson & Johnson successfully promoted its baby shampoo to adult users [2].

-Win competitors customers. The company can work to attract competitors' customers to try or adopt the brand. For example, Pepsi-Cola is constantly coaxing Coca-Cola users to switch to Pepsi-Cola, throwing out one challenge offer another [2].

Volume can also be increased by getting current brand users to increase their annual usage of the brand. There are three strategies:

-More Frequent use. The company can try to get customers to use the product more frequently. For example, orange juice marketers try to get people to drink orange juice on occasions other than breakfast time [3].

-More usage per occasion. The company can try to interest users in using more of the product each time it is used. Thus a shampoo manufacturer might indicate that the shampoo is more effective with two risings than one [3].

-New and more varied uses. The company can try to discover new uses for the product and convince people to make more varied use of it. A common practice of food

manufacturers, for example, is to list several recipes on their packages to broaden the consumers' awareness of all the uses of the product [2].

**Product Modification:** Managers also try to turn sales around by modifying the product's characteristics in a way that will attract new users and/or more usage from current users. The product prelaunch can take several forms [2].

A strategy of quality improvement aims at increasing the functional performance of the product, its durability, reliability, speed, taste. A manufacturer can often overtake its competition by launching the "new and improved" machine tool, automobile, television set, or detergent. Grocery manufactures call this a "plus" launch and promote a new additive or advertise something as "stronger", "bigger" or "better". This strategy is effective to the extent that the quality can be improved, the buyers claim of improved quality, and a sufficient number of buyers want higher quality [4].

A strategy of future improvement aims at adding new features (e.g. size, weight, materials, additives, accessories) that expand the product's versatility, safety, or convenience. For example, the addition of power to hand lawn mowers increased the speed and ease of cutting grass. Manufactures then worked on engineering better safety futures. Some manufactures have added conversion features so that a power lawn mower doubles as a snow plow. Stewart outlined five advantages of feature improvement:

- New features build a company image of progressiveness and leadership.
- New features can adapted quickly, dropped quickly, and often made optional at very little expense.
- New features can win the loyalty of certain market segments.
- New features can bring the company free publicity.
- New features generate sales-force and distributors' enthusiasm.

The chief disadvantage is that feature improvements are highly imitable; unless there is a permanent gain from being first, the feature improvement may not pay [2].

A strategy of style improvement aims at increasing the aesthetic appeal of the product.

The periodic introduction of new car models amounts to style competition rather than quality or feature competition. In the case of packaged-food and household products, companies introduce color and texture variations and often restyle the package, treating it as an extension of the product. The advantage of a style strategy is that it might confer a unique market identity and secure a loyal following. Yet style competition has some problems. First, it is difficult to predict whether people or which people will like a new style. Second, style changes usually mean discounting the old style, and the company risks losing some customers who liked the old style [2].

Marketing-mix Modification; Product manager should also try to simulate sales through modifying one or more marketing-mix elements. Here is a list of key questions that marketing managers should ask about the no product elements of the marketing mix in their search for ways to simulate the sales of a mature product: [3]

-Prices. Would a price attract new tries and users? If so, should the list price be lowered, or should prices be lowered through prices specials, volume or early-purchase discounts, freight absorption, or easier credit terms? Or would it be better to ride the price to suggest more quality [3]?

-Distribution. Can the company obtain more products to support and display in the existing outlets? Can more outlets be penetrated? Can the company get the product into some new types of distribution channels [2]?

-Advertising. Should advertising expenditures be increased? Should the advertising message or copy be changed? Should the media vehicle mix be changed? Should the timing, frequency, or size of ads be changed [4]?

- Sales Promotion. Should the company step up sales promotion-trade deals, cents-off, rebates, warranties, gifts, and contests?

-Personal Selling. Should the number or quality of sales people be increased? Should the basic for sales-force specialization be changed? Should sales territories be revised? Should sales-force incentives be revised? Can sales-call planning be improved [2]?

-Service. Can the company speed up delivery? Can it extend more technical assistance to customers? Can it extend more credit?

Years ago, Costa Mickwitz speculated on the elasticity of different marketing-mix tools at different stages of the product life cycle. For mature products, he held that the impact of marketing-mix tools ranked in this order (from high to low): price, advertising and sales promotion, product quality and service. His distinctions, however, were not fine enough. For example what is relative effectiveness of advertising versus sales promotion in the case of mature products? Many marketers argue that sales promotion has more impact than advertising because consumers have reached equilibrium in their buying habits and preferences, and psychological advertising is not as effective as financial persuasion (sales promotion deals) in breaking this equilibrium. Hence many consumer-package-goods companies spend over 50 percent of their total promotion budget on sales promotion to support mature products. Yet there are also voices taking exception to this. Seymour Banks, a former vice president at Leo Burnett, says that brand should be managed as capital assets. Advertising is wrongly treated as a expense rather than a capital investment. Branch managers like to use sales promotion because its effects are more currently visible to their superiors, but they are actually hurting the brand's long-run profit performance [1].

A major problem with marketing-mix modifications is that they are highly imitable by competition, especially price reductions and additional services. The firm may not gain as much as expected, and in fact, all firms may experience profit erosion as they step up their marketing attack on each other. [2]

### **2.3.5 Decline Stage**

This stage is the time when sales start to fall, at this point the firm can: withdraw the product, wait until other competitors have withdrawn their products, or use extinction strategies to revitalize the product and increase sales. In the extinction strategy the firm

could lower its prices but in order to work this or not is depended what competitors do and if sales increase enough. If they don't profit could be effected. It is also the risk that the competitors could retaliate and lower their prices too. If this happen, in this case the extinction will not work. Lowering the price could have an image on the product, for example we have price and quality so if the price goes down, people may thing that the quality has goon dawn too. Sales promotions are used as extinction strategies, by offering free offers that stimulate sales. One other strategy is to target a new market segment, if the product can be used by other people than the sales can be increase [2].

In order to handle the decline product firms follow two strategies: Deletion harvesting.

Deletion- Product deletion, or dropping the product from the company's product line, is the most drastic strategy. Because a residual core of consumers still consume or use a product even in the decline stage, product elimination decisions are not taken lightly. For example, Gillette still sells its Liquid Paper correction fluid for use with typewriters in the era of word-processing equipment [1].

Harvesting- A second strategy, harvesting is when a company keeps the product but reduces marketing costs. The product continues to be offered to meet customer request. Coca-cola for instance still offers Tab, its first diet cola, to a small group of die-hard fans. [4]

Sales may plunge to zero, or they may petrify at a low level and continue for many years at that level.

Sales decline for a number of reasons, including technological advances, consumer shifts in tastes, and increased domestic and foreign competition. All of these lead to overcapacity, increased price cutting and profit erosion [1].

As sales and profits decline, some firms withdraw from the market. Those remaining may reduce the number of product offerings. They may drop smaller market segments and weaker trade channels. They may cut the promotion budget and reduce their prices further.



Unfortunately, most companies have not developed a well-thought-out policy for handling their aging products. Management believes that product sales will improve when the economy improves, or when the marketing strategy is revised, or when the product is improved. Or the weak product may be retained because of its alleged contribution to sales of the company's other products. Or it may be that its revenue covers out-of-pocket costs, and the company has no better way of using the money [2].

Unless strong reasons for retention exist, carrying a weak product is very costly to the firm. The cost is not just the amount of uncovered overhead and profit. Financial accounting cannot adequately convey all the hidden costs: the weak product may consume a disproportionate amount of management's time, it often requires frequent price and inventory adjustment, it generally involves short production runs in spite of expensive setup times, it requires both advertising and sales-force attention that might better be diverted to making the "healthy" products more profitable, its very unfitness can cause customer misgivings and cast a shadow on the company's image. The biggest cost may well lie in the future. By not being eliminated at the proper time, weak products delay the aggressive search for replacement products, they create a lopsided product mix, long on "yesterday's breadwinners" and short on "tomorrow's breadwinners", they depress current profitability and weaken the company's foothold on the future [1].

### 2.3.5.1 Marketing Strategies during the Decline Stage

A company faces a number of tasks and decisions to handle its aging product.

Identifying the Weak Products- The first task is to establish a system for identifying weak products. Six steps are involved:

- The company appoints a product-review committee with representatives from marketing, manufacturing, and finance.

- This committee develops a system for identifying weak products.

- The controller's office supplies data for each product showing trends in market size, market share, prices, costs and profits.

-This information is analyzed by a computer program that identifies dubious products. The criteria include the number of years of sales decline, market-share trends, gross profit margin, and return to investment.

-The dubious products are reported to those managers responsible for them. The managers fill out rating forms showing where they think sales and profits will go, with and without any changes in marketing strategy [2]

-The product-review committee examines this information and makes a recommendation for each dubious product-leave it alone, modify its marketing strategy, or drop it.

Determining Marketing Strategies-Some firms will abandon declining markets earlier than others. Much depends on the level of the exit barriers. The lower the exit barriers, the easier it is for firms to leave the industry, and the more tempting it is for remaining firms to remain and attract the customers of the withdrawing firms. The remaining firms will enjoy an increase in sales and profits. Thus a firm must decide whether to stay in the market until the end. For example, Procter & Gamble remained in the declining liquid-soap business until the end and made good profits as the others withdrew [3]

In a study of company strategies in declining industries, Harrigan distinguished five decline strategies open to the firm:

-Increasing the firm's investment (to dominate or strengthen its competitive position).  
-Maintaining the firm's investment level until the uncertainties about the industry are resolved.

-Decreasing the firm's investment level selectively, by sloughing off the unpromising customer groups, while simultaneously strengthening the firm's investment posture within the lucrative niches of enduring customer demands.

-Harvesting (milking) the firm's investment to recover cash quickly, regardless of the resulting investment posture [3].

-Divesting the business quickly by disposing of its assets as advantageously as possible.

The appropriate decline strategy is a function of the industry's relative attractiveness and the company's competitive strength in that industry. For example, a company that finds

itself in an unattractive industry and yet has competitive strength should consider shrinking selectively. However, if it finds itself in an attractive industry and has competitive strength, it should consider increasing or maintaining its investment level. Procter & Gamble on a number of occasions has taken disappointing brands that were in strong markets and attempted to restage them [3].

P&G spokespersons have at time claimed that there is no such thing as a product life cycle, and they point to Ivory, and many other "dowager" brands that are still thriving.

If the company were choosing between harvesting and divesting, its strategies would be quite different. Harvesting calls for gradually removing costs from a product or business while trying to maintain sales as high as possible. The first costs to cut are R&D costs and plan and equipment investment. The company might also to reduce product quality, not replace retiring sales force, eliminate certain services, and reduce its advertising expenditures. It would like to undertake these cost-reducing steps without tipping off customers, competitors and employees that is slowly pulling out of business. If customers knew this, they would switch suppliers, if competitors knew this they would tell customers, if the employees knew this they would seek new jobs elsewhere. Thus harvesting is an ethically ambivalent strategy, and it is also difficult to execute effectively. Yet many mature products warrant this strategy. Harvesting can substantially increase the company's cash flow during the period that it lasts, providing that sales do not utterly collapse. This happens when the company has successfully cut its costs without causing sales to fall any faster than before [2].

The effect of harvesting a business is to make it eventually worthless. On the other hand, if the firm decided instead to divest the business, it might have looked for a buyer. In this case, it would have tried to increase the attractiveness of the business, not run it down. Therefore the company must think carefully about whether to harvest or divest the weakening business unit [2].

The Drop Decision-When a company decides to drop a product, it faces further decisions. If the product has strong distribution and residual goodwill, the company can probably sell it to a smaller firm [3].

If the company cannot find any buyers, it must decide whether to liquidate the brand quickly or slowly. It must also decide on how much parts inventory and service to maintain to service past computers [3].

### **2.4 Length of the Product Life Cycle**

There is exact time that a product takes to move through its life cycle. As a rule, consumer products have shorter life cycles than business products. The availability of mass communication vehicles-such as television and internet, informs consumers faster and shortens life cycle. Also technological change tends to shorten product life cycles as new

product innovation replaces existing products. Video game consoles move from the introduction stage to the maturity stage in five years and are then replaced by advanced models. For example: Sony Play Station3, Microsoft's Xbox 360, and Nintendo Revolution [4].

### 2.5 Shape of the Product Life Cycle

Not all products have the same shape to their curve. In fact there are different life cycle curves, each type suggesting different marketing strategies. Figure 2.5 shows the shape of life cycle curves for four different product types: high-learning, low-learning, fashion and fad products [1].

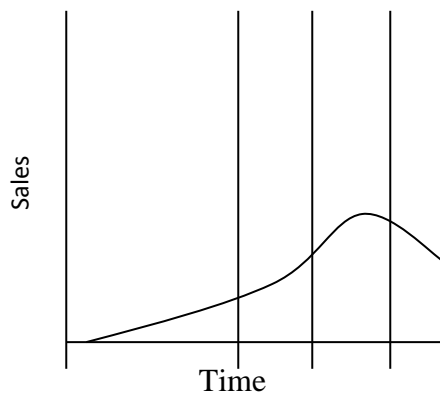
A high-learning product is one for which significant education of the customer is required and there is an extended introductory period. Convection ovens, for example required a consumer to learn a new way of cooking and alter familiar recipes [1].

Low-learning product sales begin immediately because little learning is required by the consumer, and the benefits of purchase are readily understood. This product often can be easily imitated by competitors, so the marketing strategy is to broaden distribution quickly. In this way, as competitors rapidly enter, most retail outlets already have the first product. It is also important to have the manufacturing capacity to meet demand. An example of a successful low-learning product is Gillette's MACH3 razor. MACH3 recorded \$9 billion in worldwide sales in the brief span of five years [1]

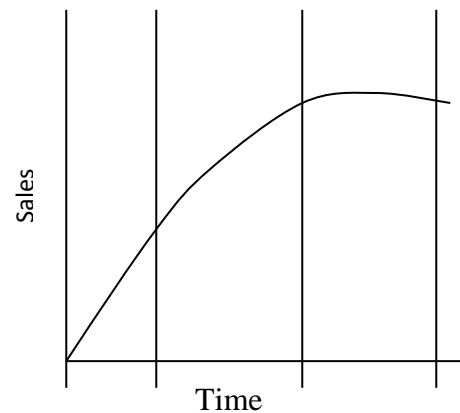
A fashion product, such as hemline lengths on skirts or lapel widths on jackets, is introduced, declines, and then seems to return. Life cycles for fashion products most often appear in women's and men's clothing styles. The length of the cycles may be years or decades [2].

A fad experiences rapid sales on introduction and then an equally rapid decline. These products are novelties and have a short life cycle. They include car tattoos sold in southern California and described as the first removable and reusable graphics for automobiles [1].

A. High-learning product



B. Low-learning product



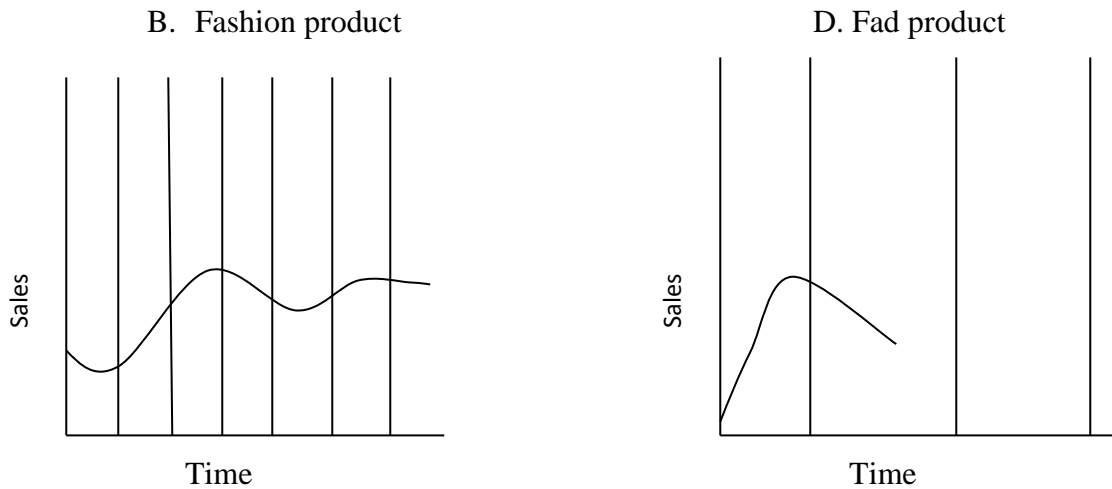


Fig. 2.5. Shape of the PLC [3].

## 2.6 The Life Cycle and Consumer

The life cycle of a product depends on sales to consumers. Not all consumers rush to buy a product in the introductory stage, and the shapes of the life cycle curves indicate that most sales occur after the product has been on the market for some time. In essence, a product diffuses, or spreads through the population a concept called the diffusion of innovation [2]

Some are attracted to a product early, but others buy it only after they see their friends with the item. For any product to be successful, it must be cuticles try to gain adoption by leading hospitals, clinics and physicians that are widely respected in the medical field. Once accepted by innovators and early adopters the adoption of new products move on to the early majority, late majority and laggard categories [2].

Several factors affect whether a consumer will adopt a new product or not. Common reasons for resisting a product in the introduction stage are usage barriers (the product is not compatible), risk barriers (physical, economic, or social) and psychological barriers (cultural differences or image) [1].

Companies attempt to overcome these barriers in numerous ways. They provide warranties, money-back guarantees, extensive usage introduction, demonstrations, and free sample to stimulate initial trial of new products. For example, software developers offer

demonstrations downloaded from the Internet. Maybelline allows consumers to browse through the Cover Girl Color Match system on its website to find out how certain makeup products will look. Free samples are one of the most popular means to gain consumer trial. In fact 71 percent of consumers consider a sample to be the best way to evaluate a new product [3].

### **3. PROBLEM STATEMENT**

The main problem that firms cope with is to keep their product in the market. If they failed to do that, than they spend more of their incomes to finance a new product in the market. In order to avoid this cost, firms must use the extension strategies that I will explain in the result chapter.

For some companies to extend the life of a product it is very costly because they have to invest mach more money in that product than they did before. The companies should increase investments for the advertising for example if in the introduction phase of the product they spend certain amount of money now they should increase this amount.

Other problems for some other companies may be the space because if the product is in the extension phase in the same time the company should introduce one other product into market in order to cover all the costs.

The literature review gives deeply information and detailed answer in the question that I have made.

**RQ1. How to extend the life of a product?**

### 4. METHODOLOGY

Based on how we define those types of research study, I can say that my study applies explanatory study. The main purpose of this study was to explain any behavior in the market. In this study i tried to explain how is the relationship between costumer and companies, how the companies implement different strategies to maintain the product as long as they can. The study is based in the literature review.

This study is focused more in researching from general to specific, using literature and internet as base sources. So we can say that this study is following deductive approach.

I thing that my study is the combination of qualitative and quantitative because, qualitative: (researcher is the data gathering instrument, data is in the form of words), quantitative (researcher knows clearly what is he looking for, recommended during latter studies).

My research strategy is based in gathering information by the internet and literature review. In the beginning I set the main chapters and get information for those, brainstorming method.



### 5. RESULTS

Companies and their marketing professional are very careful about product life cycle. In other words when a company releases a new product, they know that this product will go in different lifecycle stages. As that product nears to end, the company should decide what to do: retire the product altogether or extend the life of the product by using different strategies. Some of those strategies are: new packaging and featuring the product, different pricing strategies for the product, re-branding techniques for the product and expanding the market of the product.

According to literature review, information from the internet and this study that I have done about how to extend the life cycle of the product. I realize that if a product is falling in the decline stage it is time for company to think how to extend the life of that product rather than to introduce a new one into a market.

If the company implements the strategies to extend the product life cycle that are mentioned in this study than they will avoid a lot of expenses. Introducing a new product into a market it costs a lot for the companies, except that they should deal with production costs, company management should also invest on the advertising, promotion and gain customer for that product. But if the company use or implement those extension strategy they don't have to invest so much in production machinery, design, promotion because they already have those and their market, the only thing that the company should do is to convince customers that they shouldn't give up from this product and expand the market, find new customers.

Many companies that have bankrupt because of their products didn't succeed and declined in very short time, would had success if they would try to extend their product life by using those methods or strategies.

As a result of product life extension companies are able to control competition. This is possible if a company is able to maintain its product for a long time in the market, that it means that the costumers are loyal to that brand and to that company too. Because if company is forced to withdraw its product from the market than that company will lose the market too and always there is one other product and company that will try to gain that market. So this is the key of leading in the competition and in the market, and also to reduce the costs, to make long life products by extending product life cycle.

According to Laura Acevedo, eHow Contributor some of the strategies that have been used in order to extend product life cycle are: re-branding, features, packaging, pricing [5].

**Re-branding-** Change the name of an existing product that has a different target market. This kind of strategy tries to offer a positive image of the product in front of the consumer. ” For example, if you sell shampoo that is known for high style and fashion, you need to consistently offer new and improved versions of your product to maintain customer interest and product market share. Re-brand an older formula under a mid-level or budget brand name to extend the life of each shampoo formula. The mid-level or budget brand will get a boost from a new product offer, and your company will gain additional product life and profits” [5].

### Re-branding

Strength (+)	Weaknesses (-)
-Positive image	-Dissatisfaction among costumer
-Gives the business a new image	- Loose costumers, may not adjust to new brand
-Costumer awareness	

**Features-** modifying features to adapt the changes in consumer preferences and market changes. For example, if company offers a dress with pink color and old fashion than you may just change the color to black and make some decoration to update the dress to current fashion [5].

**Features**

Strength (+)	Weaknesses (-)
- Adapt changes in customer preferences	- customer preferences may not change

**Re-Packaging-** Change the look of the product, different one, fresh image. Also it is very important the messaging in the packaging. For example, if the company offers colored pencils packaged in the plastic container changes the packaged that is made from recycled materials. The product now is oriented to environmental customer [5]

**Re-Packaging**

Strength (+)	Weaknesses (-)
-Targeting new market	- Loose loyalty costumers
-Fresh look	
- New image	

**Pricing-** Is one of the oldest and classic strategies to extend the life of the product.

In the literature review are deeply explained every stage of the product life cycle and its marketing strategies. It is interesting that the same system and mostly the same strategies in the product life cycle are used since nineteenth century. “For example, if you are about to release a new version of an electronic device, extend the product life of the old version by offering it at a heavily reduced price. Not only will you gain customers that can afford your newest offering, you sustain market share for the entire family of products you offer” [5].

**Pricing**

Strength (+)	Weaknesses (-)
-Gain new costumers -Increase sales	- Risking not covering the costs

### 6. CONCLUSION

#### 5.1. RQ1. How to extend the life of a product?

Based on this research study, I can conclude that there are a lot of strategies that can be used by companies to extend life of a product in the market.

The most successful strategies that a company should use are:

- **Pricing**, this is an old strategy that have been successful many years before. By reducing the price company can increase the sales and then cover the production costs. In this phase, when the company try to use this strategy first should do a research in the market about costumer's impression for the product. For example, if costumers have a positive opinion about high quality of the product, than this strategy cannot be used because as we mention before, if the company reduces the price than costumers will thing that quality will be low too.

In the result chapter are shown positive and negative attribute of this strategy. In base of that result, pricing is the strategy that should use by the companies because there are more positive attributes than negative

- **Re-branding**, this strategy can be used from the companies that offers product that are long time in the market (old fashion). If the costumers are satisfied by the products of the same company but some products are long time in the market. Company can just rebrand that product and the costumers will buy it, it is a physiological effect and company will increase sales just by change the name of the product.

In the result chapter positive attributes for this strategy are stronger than negative.

- **Feature**, this strategy is more used in the modern time, fast development of the technology make the company to produce a product not just for one function, market is going in the period of time when will be the system of "all in one". One other way of this strategy is changing in the color in the package; change the taste for the food products, impressive catchwords, and appropriate package.

Feature strategy has positive and negative attributes in the result chapter so it depends from the product and company if want to use.

- **Re-Packaging** is the best strategy together with re-pricing based in the results that are shown in the result chapter. This strategy has a lot of more positive attributes than negative.

Those were the strategies that should use by the companies that want to extend the life of their products in the market and to be in a step with their competitors. It is important to mention that strategies that I have mention will not extend the product life forever, just for short period of time (it depends from the nature of the product). So all companies should accept the fact that every product has its introduction and decline phase in the market.

### **7. RECOMMENDATIONS AND FUTURE WORKS**

#### **6.1. Implications for Theory**

The main issue of this research it was to explain the life of a product from the introduction stage to the decline stage, and which strategy company should use to extend product life. I have tried to give the reader a clear understanding about life of a product. All the sources that I used were mostly from the literature and the web sites. In this research I had problems to get information that explains more deeply about the product life cycle, most of the books have just two or three pages that explains product life cycle. As a result of this research and my knowledge that I have now for this issue I think that has a lot of things to explain about this study, there is a need to have more books of this study, to give the future researchers more deeply information.

#### **6.2. Recommendations for Future Researchers**

In the beginning of this study I have made a question and I have tried to focus my research on that question and answer it. So I would recommend the future researchers to focus more in the introduction of the product in the product life cycle. The main focus should be how to reduce costs of the products in this stage. It is very important to do research for new strategies that help companies to introduce more products in the market with lowest costs. As it is mention in this study most of the expenses for the companies are in the introduction stage.

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