
Course 4: PRODUCT/SERVICE DEVELOPMENT

1. INTRODUCTION

In Entrepreneur's business, product/service development is the term used to describe the complete process of bringing a new product or service in the market and it's an ongoing practice in which the entire business is looking for opportunities as new products provide growth promise to businesses that allow them to strengthen their market position. The new product development process involves the idea generation, product design, and detail engineering; and also involves market research and marketing analysis. Intense global competition, short product and technology lifecycles, unpredictable consumer buying patterns and possible market stagnation makes new product development a critical activity in most businesses. Hence, this course explores the new product development process and at the same time sketch outs the product development procedure in reality where consideration of real life situation and consumer insight are the main concern. Besides, the course; considering (often entrepreneur), because of their lack of understanding of intellectual property, ignore important steps that they should have taken to protect these asset; will describe all the important types of intellectual property which have become unique problems to the Patent and Trademark Office.

Course Objectives

After completing this course, students will be able to:

- Describe the Concept of Product and Services;
- List Product/Service Development Process; and
- Discuss the Intellectual Property Protection.

2. The Concept of Product/Service

Many entrepreneurs find it difficult to identify a new product/service or a new market opportunity. To start and expand a small venture, an entrepreneur needs to identify opportunities for domestic and/or international expansion. As the new venture grows and matures a need for different management skills can occur as well as for a new infusion of the entrepreneurial spirit (corporate entrepreneurship). Entrepreneurs like Richard China or Mal Mixon, CEO of Invacare, understands this axiom and effectively manages change by continually adapting organizational

culture, structure, procedures, strategic direction, and products in both a domestic and an international orientation.

Organization's success is dependent on customer satisfaction and delight. Customer satisfaction is achieved through the development of product and service, which have all attributes required by the customer. A success product or services do not only have an attractive package design but should be also able to provide robust performance. Thus, product design must be practical enough for production and powerful enough to provide a competitive advantage.

The essence of product design is to satisfy customer and maximizes the value for the customer at minimum cost. The merchandise or service should also be able to meet primary needs and desire of the customer. This may not require development of new merchandise, but an enhancement to existing merchandise or service.

Most companies apparently are introducing a wide variety of smaller, more efficient, and more intelligent products, coupled with a leaner, more efficient approach to operation. The goal is to create products and services by identifying an emerging trend and to match that trend with the right technology and understanding of the purchasing dynamics.

A successful startup depends on its distinctive and compelling proposition. This is how merchandise or services stand out from the competition and are compelling to the young company's customers.

The merchandise or service will succeed most if it either eliminates an existing pain or adds significant tangible benefits. It is easier to sell/deliver a new merchandise/service that eliminates a well-known existing pain, as opposed to sell an item or service that doesn't clearly solve a potential client's pain.

There also seems to be a popular myth that anyone can be successful by simply working on any given idea or opportunity. This isn't true! You can't. Most businessmen are very knowledgeable about the merchandise before they start, since even experienced operators will run into unexpected troubles when they start their new business. Novices generally introduce more problems than they can deal with, which only undercuts their ability to be lean, fast or effective.

4.3 Product/Service Development Process

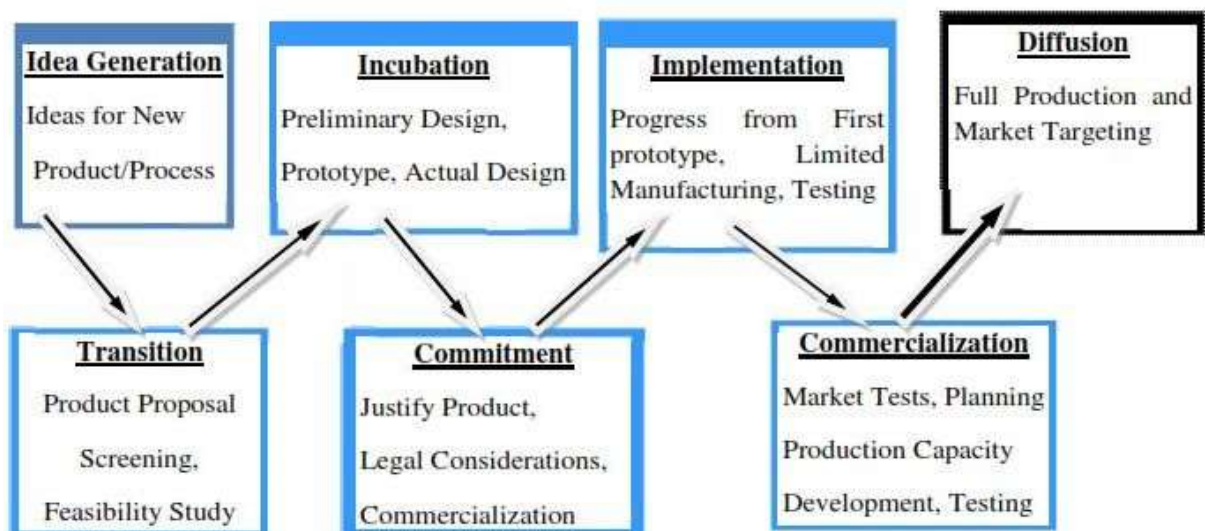
Once the opportunity is selected, and a business model has been designed, the next step is to develop a commercial version of the opportunity which in most cases is either a product or a

service. One of the essential characteristics of a successful business is exemplified by its ability to continuously and rapidly develop new or improved versions of existing products that deliver values more than customers expect (*Palgrave, 2019.*)

Product development is the process through which companies react to market signals, respond to changes in customer demand, adopt new technologies, foray into new areas, and ensure continuous growth. It is a core process in achieving strategic objectives, renewal of the company business model and deterring competition from displacing the company from its market position. Product/service development process is part of the overall new-venture creation process. Even though there are many models that advocate what the product/service generation process should look like, for this purpose we shall adopt four distinct stages.

These stages can be referred to as:

1. Idea Generation
2. Incubation
3. Implementation
4. Diffusion



The various stages of new product development process are explained next:

1. **New Idea Generation**

The new product development process starts with search for ideas. Companies have to encourage any new idea coming. The key to successful domestic and international entrepreneurship is to develop an idea that has a market for the new product/service idea conceived.

Some of the more fruitful sources of ideas for entrepreneurs include consumers, existing products and services, distribution channels, the federal government, and research and development.

2. Idea Screening

In the 2nd stage, the purpose is to lessen the number of ideas to few vital/valuable ideas. The ideas should be written down and reviewed each week by an idea committee who should sort the ideas into three groups- *Promising Ideas, Marginal Ideas, and Rejects*: Each promising idea should be researched by committee member.

3. Concept Development and Testing

Attractive ideas must be refined into fast able product concepts since people do not purchase ideas but they buy concepts. Any product idea can be turned into several product concepts. The questions asked probably include:-

- Who will use the product?
- What benefits should the product provide?
- When will people consume the produced?

Concept Testing: - calls for testing product concepts with an appropriate group of target consumers/customers, and then getting the consumers' reactions. At this stage, the concepts can be in words or picture description.

4. Marketing Strategy Development

After testing the new product the concerned body must develop a preliminary marketing strategy plan for introducing the new product into the market. The marketing strategy will undergo further refinement in subsequent stages.

The marketing strategy plan consists of three parts: (1) Market size, structure, behavior ;(2) Planned price, distribution strategy, and marketing budget of the 1st year; and (3) Long run sales and profit goals, marketing mix strategy.

5. Business Analysis

After management develops product concept and marketing strategy, it can evaluate the proposals' business attractiveness. Management needs to prepare sales, cost and profit projections to determine whether they satisfy the company's objective or not.

Estimated Total Sales: - Management needs to estimate whether sales will be high enough to yield satisfactory profit.

Estimating Cost and Profits: - After sales forecast the management should estimate the expected cost and profit at various levels of sales volume.

The company can use other financial measure to evaluate the merit of a new product proposal. The simplest is *breakeven analysis*.

Activity

- *You are required to read on Breakeven Analysis and familiar with how it will be applied for the intended purpose.*

6. Product Development

If product concept passes the business test, it moves to R&D or engineering to be developed to one or more physical version of the product concept. Its goal is to find a proto type that the consumers/customers see as embodying the key attribute described in the product concept statement,

Scientists must not only design the products' required functional characteristics but also know how to communicate its psychological aspects through physical cues and how will the consumer/customer react to different colors, sizes, weight & other physical cues.

When the prototypes are ready, they must be put through regroups functions and consumer/customer tests. Functional tests are conducted under laboratory & field conditions to make sure that the product performs safely and effectively (Durability, Speed, Cost, etc) Consumer testing can take variety of forms, from bringing consumers/customers into laboratory to giving them samples to use in their homes.

7. Market Testing

After management is satisfied with the products' functional and psychological performance, the product is ready to be dressed up with the brand name.

The goals are to test the new product is more authentic consumer/customer settings and to learn how large the market is and how consumers/customers and dealers react to handling, using and repurchasing the actual product.

Most companies know that market testing can yield valuable information about buyers, dealers, marketing program effectiveness, market potential & other matters.

Test Marketing yields several benefits include more reliable forecast of future sale, and pretesting of alternative of future sale.

8. Commercialization

When (Timing):- In commercializing, market entry timing is critical. If the company hears about a competitor nearing the end of its development work, it will face three choices. The 1st choice is **First Entry**. Under this category, the firm usually enjoys the "first mover advantage" of locking up key distributors & gaining reputation. The 2nd choice goes with **Late Entry Strategy**- which has three advantages include:-

- The competition will have borne the cost of educating the market;
- The competing product may reveal fault that the late entrant can avoid; and
- The company can learn the size of the market.

The 3rd strategy- **Parallel Entry**- can be also chosen by the company to get in the market. The strategy to work, a prospective businessman can take the advantage of opting for the latest technology and production process and operate at higher volume of operation. This leads to reduced production cost and production of quality goods and services. A new businessman can thus provide improved quality goods and services at lower cost and further tap the market with an innovative marketing approach.

Where (Geographical Strategy):- The company must decide whether to launch the new product in a single locality, a region/several regions, in the national/international market.

To Whom (Target-Market-Prospect):- Within the rollout markets, the company must target its distribution and promotion to the best prospect group. Prime prospects for a new consumer/customer's product would ideally have the following characteristics:

- They would be early adapters;
- They would be heavy users;
- They would be Opinion leaders; and
- Could be reached at low cost.

How (Introductory Markets Strategy):- To sequence and coordinate many actives involved in launching a new product may/can use network-planning techniques such as **Critical Path Scheduling (CPS)**.

Activity:

- Please read on Critical Path Scheduling technique and try to relate it with the how strategy.

4. Legal and Regulatory Frameworks for Entrepreneurs

Since there are many options that an entrepreneur can choose in setting up an organization, it will be necessary to understand all the advantages and disadvantages of each regarding such issues as liability, taxes, continuity, transferability of interest, costs of setting up, and attractiveness for raising capital. Legal advice for these agreements is necessary to ensure that the most appropriate decisions have been made.

One of the challenges the novice entrepreneur will face as she goes into business understands the regulatory environment which is made up of numerous laws and regulations. To operate as a legal businessperson and protect the business from unnecessary suits and liabilities, the entrepreneur needs to understand the various laws that govern his/her business. Following are the key legal issues for the entrepreneur.

5. Intellectual Property Protection/Product/Service Protection

1. What is Intellectual Property?

Intellectual Property which includes patents, trademarks, copyrights, and trade secrets represents important assets to the entrepreneur and should be understood even before engaging the services of an attorney. Too often entrepreneurs, because of their lack of understanding of intellectual property, ignore important steps that they should have taken to protect these assets.

Intellectual property is a legal definition of ideas, inventions, artistic works and other commercially viable products created out of one's own mental processes. In the same sense that real estate titles establish ownership of tangible items, intellectual property is protected by such legal means as patents, copyrights, and trademark registrations. In order to enjoy the benefits arising from the exclusive ownership of these properties, the entrepreneur needs to protect these assets by the relevant law. This is the reason why' experts strongly recommend that those in creative fields seek protection through official registration of their intellectual properties.

2. Patents

An entrepreneur who invents a new thing or improves an existing invention needs to get legal protection for her invention through a patent right. A patent is a contract between an inventor and the government in which the government, in exchange for disclosure of the invention, grants the inventor the exclusive right to enjoy the benefits resulting' from the possession of the patent.

- 📌 **Utility Patent:** A utility patent protects any new invention or functional improvements on existing inventions.
- 📌 **Design Patent:** This patent protects the appearance of an object and covers new, original, ornamental, and unobvious designs for articles of manufacture. Like utility patents, design patents provide the inventor with exclusive right to make, use and/or sell an item having the ornamental appearance protected by the patent. This patent is appropriate when the basic product already exists in the marketplace and is not being improved in function but only in style. These patents are particularly important to companies such as shoe producers and product package design firms that need to protect their ornamental designs.

A patent provides the owner with exclusive rights to hold, transfer, and license the production and sale of a product/process. It is an intellectual property right and It is issued by government to the inventor. This exclusive property right can be granted for a number of years depending on the countries laws and type of property. Patents are property rights that can be sold and transferred, willed as well as licensed and at times used as collateral.

What Can Be Patented Then?

- *Processes:* Methods of production, research, testing, analysis, technologies with new applications.
- *Machines:* Products, instruments, physical objects.
- *Manufactures:* Combinations of physical matter not naturally found.
- *Composition of matter:* Chemical compounds, medicines, etc.

4.5.3 Trademarks

A trademark may be a word, symbol, design, or some combination of such, or it could be a slogan or even a particular sound that identifies the source or sponsorship of certain goods or services.

These are distinctive names, marks, symbols or motto identified with a company's product or service and registered by government offices. Unlike the patent, a trademark can last indefinitely, as long as the mark continues to perform its indicated function. Trademarks unlike patents are periodically renewed unless invalidated by cancellations, abandonment, or other technical registration/renewal issues.

Benefits of a Registered Trademark

- It provides notice to everyone that you have exclusive rights to the use of the mark throughout the territorial limits of the country.
- It entitles you to sue in federal court for trademark infringement, which can result in recovery of profits, damages, and costs.
- It establishes incontestable rights regarding the commercial use of the mark.
- It establishes the right to deposit registration with customs to prevent importation of goods with a similar mark.
- It entitles you to use the notice of registration (®).
- It provides a basis for filing trademark application in foreign countries.

4.5.4 Copyrights

Copyright is a right given to prevent others from printing, copying, or publishing any original works of authorship.

Copyrights provide exclusive rights to creative individuals for the protection of literary or artistic productions. It protects original works of authorship including literary, dramatic, musical, and artistic works, such as poetry, novels, movies, songs, computer software, and architecture. They pertain to intellectual property. Usually copyrights are valid for the life of the inventor plus a few decades.

6. The Intellectual Property System in region

The regional Government established the regional Intellectual Property Office in the year 2003 containing the understated Objectives:-

- To facilitate the provision of adequate legal protection for and exploitation of intellectual property in the country;

- To collect, organize and disseminate technological information contained in patent documents and encourage its utilization;
- To study, analyze and recommend policies and legislation on intellectual property to the government; and
- To promote knowledge and understanding of intellectual property among the general public;

The existing laws and directives in region in the field of Intellectual Property (IP) are the Patent Proclamation and the Implementing Regulation, the Copyright and Related Rights

Proclamation and The Trademark Registration Directive.

According to the proclamation in order to be granted a patent, an invention must fulfill three conditions- (1) it must be new- It should never have been published or publicly used before; (2) It should be capable of industrial application- It must be something which can be industrially manufactured or used; and (3) It must be "non-obvious"- It should not be an invention which would have occurred to any specialist working in the relevant field.

The proclamation excludes the following from patentability:-

- Inventions contrary to public order or morality;
- Plant or animal varieties or essentially biological processes for the production of plants or animals; and
- Schemes, rules or methods for playing games or performing commercial and industrial activities and computer programs;
- Discoveries, scientific theories and mathematical methods; and
- Methods for treatment of the human or animal body by surgery or therapy as well as diagnostic methods practiced on the human or animal body.

Rights of a patentee include making, using and exploiting the patented invention in any other way. Any person who wants to use the patented invention has to get the authorization of the owner/inventor. The patentee does not have import monopoly right over the products of the patented invention in region.

There are certain limitations of rights of the patentee included in the proclamation such acts done for non-commercial purposes; the use of the patented invention solely for the purposes of scientific research and experimentation; the use of patented articles on aircraft, land vehicles or vessels of other countries which temporarily or accidentally enter in to the air space, territory or

waters of region; acts in respect of patented articles which have been put on the market in region by the owner of the patent or with his/her consent; the use of the patented invention for national security, nutrition, health or for the development of vital sectors of the economy, subject to payment of an equitable remuneration to the patentee; the duration of a patent is 15 years which may be extended for a further period of five years if proof is furnished that the invention is properly worked in region.

Trademark Directive is issued in the country in 1986 with the following objectives in that it helps:-

- To centrally deposit trademarks which are used by local and foreign enterprises to distinguish their goods or services;
- To distinguish the products or services of one enterprise from those of other enterprises and prevent consumers from being victims of unfair trade practices;
- To provide information on trademark ownership and right of use when disputes arise between parties;
- To provide required information on trademarks to government and individuals; and
- Protection is granted after publication of cautionary notice;

Copyright is protected on the basis of the copyright and related rights proclamation issued in 2004. The proclamation gives protection to literary, artistic and scientific works which include books, pamphlets, articles, computer programs and other writings; speeches, lectures, addresses, sermons, and other oral works; dramatic, dramatic-musical works, pantomimes, choreographic works, and other works created for stage production; musical works, with or without accompanying words; audiovisual works and sound recordings works of architecture; works of drawing, painting, sculpture, engraving, lithography, tapestry, and other works of fine arts; photographic and cinematographic works; illustrations, maps, plans, sketches, and three dimensional works related to geography, topography, architecture or science; derivative works; and collection of works, collection of mere data (databases) whether readable by machine or other form.

The Proclamation gives protection to:

- Works of authors who are nationals of or have their habitual residence in region;
- Works first published in region; or works first published in another country and published within thirty days in region;

- Audio-visual works whose producer has his headquarter or habitual residence in region; and
- Works of architecture erected in region and other artistic works incorporated in a building or other structure located in region.

The author of a work shall be entitled to protection, for his work upon creation where it is an original work; and written down, recorded, fixed or otherwise reduced to any material form. Quality of the work and the purpose for which the work may have been created is not taken in to consideration.

The rights of performers, producers of phonograms and broadcasting organizations are also protected by law. Copyright is protected for the life of the author plus fifty years. Fifty years for the rights of performers and producers of sound Recordings and 20 years for the rights of broadcasting organizations.

4.7 Course Summary

- ☞ Entrepreneurs must always remember that marketing, advertising, or promotional activities are completely worthless, regardless of how clever, expensive, or perfectly targeted they are, unless one simple thing is accomplished--ask for the sale. This is not to say that being a great salesperson, advertising copywriting whiz or a public relations specialist isn't a tremendous asset to your business. However, all of these skills will be for naught if you do not actively ask people to buy what you are selling.
- ☞ Your business is all about your customers, or clients, period. Everything you do in business must be customer focused, including your policies, warranties, payment options, operating hours, presentations, advertising and promotional campaigns and website. In addition, you must know who your customers are inside out and upside down.
- ☞ Laws and regulations exist to protect competition, consumers, people in the workplace, and intellectual property; to allow bankruptcy; and to establish contracts.
- ☞ Too often entrepreneurs, because of their lack of understanding of intellectual property, ignore important steps that they should have taken to protect these assets. This informs will describe all the important types of intellectual property which have become unique problems to the Patent and Trademark Office.
- ☞ Patents, copyrights, and trademarks are legal way to protect intellectual property. A patent grants an inventor the exclusive right to make, use, and sell

☞ Since all business is regulated by law, the entrepreneur needs to be aware of any regulations that may affect his or her new venture and will need legal advice.

4.8 Questions for Review and Discussions

1. What advice would you give to a business colleague who is about to start a new high-tech firm that has developed a new accessory for computer tablets? Would you recommend that s/he seek a patent immediately?
2. Imagine that you have developed a unique formula for a soft drink that, upon entering a person's mouth, analyzes the drinker's DNA to determine his/her favorite flavor, and then the drink instantly realigns its chemical composition become that flavor. Describe as how you can best protect this trade secret? Will you patent it? Why or why not?
3. What factors should s/he consider in the process of debating whether a patent would be appropriate?
4. What rights does owning a patent protect? How do you get this protection?
5. What tests must an invention pass to receive a patent?
6. What is the difference between a copyright and a trademark? Between a trademark and a brand?