**Course: Marketing Management (8423)** 

Semester: Autumn, 2021

#### **ASSIGNMENT No. 1**

Q. 1 Select a business organization and describe its competitive environment for the products or services. What are the implications of this for the selected organization?

New Product Development (NPD) is the total process that takes a service or a product from conception to market. New or rebranded products and services are meant to fill a consumer demand or an opportunity in the marketplace. The steps in product development include drafting the concept, creating the design, developing the product or service, and defining the marketing.

A new product opens a whole new market: It can completely replace a current product, take over an existing product, or simply broaden the market for something that already exists. Sometimes existing products are introduced to new markets, repackaged, or marketed differently. New products can improve the use of a company's resources, launch a company into a new market or segment of the market, improve the relationship a company has with its distributors, or increase or defend a company's market share.

New products generally differ from a product line extension, which are products that are slightly different to the company's existing array of offerings. Examples of new goods include mass-market microwaves and Keurig one-cup gourmet coffee machines. In the case of microwaves, a whole new market was born when they were mass-produced and offered at reasonable household prices. In the case of the Keurig machine, the gourmet coffee experience previously only found in a coffee shop was brought into the home. Examples of product line extensions include the Infiniti automobile line and Diet Coke. For the Infiniti line, Nissan targeted the premium vehicle market by extending their auto line at a higher price point. Coca-Cola company used Diet Coke to target the market of soda drinkers that wanted a lower calorie soda than their regular Coke product. Both of these products capitalized on pre-existing products that had already garnered brand loyalty.

Process management is a technique that ensures improvements are introduced with a consistent, structured set of activities. In your product development processes, whether for a new or revamped product, your process management strategies are critical to ensuring that your products will be continuously improved. These strategies will necessarily include your product development processes, and ensure that even very complex products make it to market consistently and improved regularly. The four phases of product development are:

1. Fuzzy Front-End (FFE): FFE, often called the ideation step, is considered one of the best opportunities for driving innovation in a company. FFE is not frequently mapped in any formal way, since this is the phase where you pitch all of your great ideas for solutions to your customer's problems. FFE is called fuzzy because it occurs before any formal development starts, in the vague period where little structure or defined direction exists. Very few products that are originally pitched in FFE come out of it; however, this stage of predevelopment is critical. Successful completion of pre-development can take you seamlessly into development.

There have been many case studies that examine how FFE is done in different companies, looking for consistencies and best practices. Some companies have idea management software or some type of regular way that they generate ideas. Some companies use integrated product teams (IPTs), a group that is responsible for

defining the product. Volumes have been written about FFE because of its relative importance in product development, but the FFE process is unique to each company. However, there are a few consistent activities that occur with every FFE approach, and provide teams with critical decision points before moving forward. These include:

- **Determining the innovation goal.** This preliminary analysis is your opportunity to figure out what problem you need to solve for your customers before you make a product. For example, one big failure in the annals of product history is Google Glass. Google made a device without considering what problems they were solving for their customers. Therefore, their product was a monumental (and very expensive) failure.
- Figuring out what your customers think about this goal. People will buy a product or service that solves a problem for them, but the problem itself must be present. Products that customers don't need, didn't ask for, or degrade your brand loyalty are unsuccessful. For example, in 1985 Coca-Cola Company released New Coke, a revamp of their classic Coca-Cola beverage formula. This reformulation changed a 100-year old recipe based upon market taste research. However, once New Coke was launched, consumer outcry was overwhelming. Within 79 days, the company replaced New Coke with the original Coca-Cola formula repackaged as "Classic Coca-Cola." New Coke is now widely considered the biggest commercial marketing blunder of all time.
- Reviewing other market segments for possible connections or technology to get ideas. When thinking about new products, it's important to collect data on how people are using the product, how much they will pay, and whether the price for the benefit is reasonable. During your market research phase, you should also review the market size and conduct a segmentation analysis.
- **Prototyping your ideas.** A prototype is a mockup of the proposed product, intended to verify your design. The extent of the product prototype is dependent upon your company's needs. Some companies need a fully-functional model to show how the product works, while some companies will only require a 3D representation. Further, you should test your prototype in different use-case scenarios and identify its points of failure.
- Testing your ideas with your customer base. You should conduct a customer value assessment to obtain the opinion of a sample of your target market. This assessment helps to adequately predict the response to the release of your product. Experts say that early customer involvement cuts down on uncertainty and helps make product objectives clear product. This is called listening to the voice of the customer (VoC).
- Planning how to funnel these potential products into your product development process. Planning is the initial stage of deciding how to develop, mass produce, and market the new prototype. This is your opportunity to conduct a technical assessment, and also your source-of-supply assessment.



Regardless of how your company performs FFE, there are some deliverables you should expect to create for each product that moves beyond FFE. These include:

- A mission statement
- The market trends
- The customer benefits and acceptance data
- The technical concept
- Product definition and specifications
- Economic analysis of the product
- The development schedule
- Project staffing and the budget
- A business plan
- An economic analysis

Regardless of how innovative they are, all new product ideas must meet certain criteria for your company. They must:

- Fit your company skill sets.
- Fit the interest of your company.
- Solve a problem for someone.
- Be something that someone will buy.
- Be scaleable.

Use these criteria to whittle down your ideas into manageable new products for your company and keep innovation in check. Not every "great idea" is appropriate for every company to develop.

- 2. Design: Once a product is more than just a notion, the next step in the product development process is the product design. Some of these activities may have been started in FFE, but in this step, all of the planning goes into high gear so that you capture both the high-level design processes and detail-level requirements. This step is mostly about validating the manufacturing feasibility of the product, and how you'll integrate the internal components of the design.
- **3. Implementation:** During this phase of development, you will determine whether your prototype meets your design and requirements specifications from the previous steps, and you will also figure out how to deliver the product and provide support for your customers. At this point, you prepare your facilities that will manufacture, provide the supplies for, transport, and distribute the product.

**4. Fuzzy Back-End (FBE):** This stage is sometimes called the "messy" back-end of innovation. This process is not considered as fun as the innovation process because in FBE, fun meets the execution processes and you must be disciplined about the release. This is the true commercialization phase where production and product launch happen in a structured way. In other words, the FBE is where the product truly comes to life in the marketplace, executing a company's strategic vision.

Innovation refers to any time you introduce new products, or even make changes to old products. From your customer's perspective, ideas that become solutions to their problems are innovative. There are many different ways that you can categorize the different types of new products. Depending on how you break them down, these may include products that are only new to your company. However, there are four universally agreed-upon categories for innovation:

- 1. **Breakthrough Products:** The type of product that most people immediately think about when they think about innovation. The product may be new to the company or the world and may offer a huge improvement in performance, a great reduction in cost, or a leap in technology. Sometimes these products converge technology so that several different products come together to create something new. These products come on strong in the market, then quickly drop to a lower level of performance as other manufacturers catch up. Many of Apple's products in Steve Jobs' era were considered breakthrough products, such as the iPhone.
- 2. **Incremental Products:** Also known as sustaining products, they often reduce costs, improve existing product lines, reposition existing products in new markets, or are an addition to an existing platform. They generally improve the current product with new generations. Sustaining products are critical in the market because they usually perform pretty well and extend the life cycle of the breakthrough product before they taper off. Profitability is maximized in the incremental product because it generates revenue for future development without incurring huge development costs.
- 3. **Platform Products:** These products set the basic architecture for a next-generation product. They are larger in scope than incremental products. You may use the basic design of platform products for several products in a family and can satisfy a variety of markets.
- 4. **Disruptive Products**: These products have a longer initial gestation period upon release, but then have enormous growth. Disruptive innovations are those that offer simple, low-cost solutions to your customers' problems. They disrupt market-leading products by offering low-quality products, then improving the quality until they capture the mainstream market. For example, when Netflix came out it wasn't a disruptor because customers didn't get the immediate gratification of getting their movies like they could by going to the Blockbuster store. However, as Netflix's service improved, shortening the time to deliver movies and eventually streaming them online, they put Blockbuster stores out of business.

# Q. 2 Explain what are the possible conflicts between marketing and other functional areas and why? How can these conflicts be reduced or avoided?

Your primary business goal is to sell. You might think this makes it obvious that your marketing department should sell as much as possible and that your production department should strive to keep up. However, legitimate conflicts can arise between production and marketing, and your ability to understand and resolve these conflicts can determine the success or failure of your business.

# **Quality Control Issues**

One myth that permeates many marketing departments is that production personnel want to slow down so they won't have to work so hard. This myth can cause conflicts. Production may want to go slower in order to make a higher-quality product, which can cut down on customer returns and complaints. If marketing insists that production must always be at capacity, you may need to step in and determine if the value of quality control measures is worth the price of lower production.

# **Confusion over Authority**

Department managers can become hungry for authority. For example, the production manager may view himself as the person who controls the pulse of the company; if he doesn't put the products out, no one can sell them. This type of manager slowly gains authority and may begin to set a production pace that pleases him instead of one that meets demand. The solution is to lay out clear lines of authority. Management can set production quotas, thereby demonstrating that authority for production levels comes from above, not from the production or sales departments. This eliminates the problem of sales staff accusing production personnel of holding them back by not making enough products to meet customer demand.

## Lack of Feedback

Conflicts can develop between managers without upper-level executives hearing about it. If marketing is screaming for more products and production is screaming for more time, resentment grows and personnel may not be able to focus on their jobs. Executives need to be in the feedback loop, and regular meetings with marketing and production managers can help resolve conflicts before they fester into battles.

## **Isolation from Market Forces**

Conflicts often develop when the production department doesn't sense the pressures of the marketplace. Marketing staff may see changing demand or tastes, increased competition and improved versions of competitors' products that can hurt your company's sales. If production insists on doing things the way it always has done them, conflict may arise. In such a case, a top-level manager must step in and create production standards that address changes in the market.

The best employees do not always make the best managers. Being a manager requires a set of skills that go beyond being a good employee, including strong communication, motivational skills and a vision for the company's future. Work with your managers to determine their weaknesses, and then develop a plan to improve managerial performance. A strong management team is essential to your company's future success.

# **Interdepartmental Relations**

Departments within a company need to work together to reach corporate goals and grow the company. A weak manager lacks the ability to interact with other departments and may even work to create an adversarial relationship with some groups that can be extremely counterproductive. For example, the sales manager might disagree with the way in which the marketing group presents products. Rather than address the issue and work to fix it, the sales manager may create a bad relationship between the sales department and marketing group.

## Favoritism

A manager has her core of productive employees that strive to perform above corporate expectations. When a manager shows favoritism towards those core employees, the production and morale of the remaining staff members drop. A strong manager knows how to leverage top producers to motivate the rest of the group to succeed. The weak manager creates an unbalanced workload that is skewed heavily toward the top producers. This alienates the rest of the group and reduces the effectiveness of productive employees.

#### **Discipline**

Discipline in a workplace needs to be handled in a professional manner. When a manager has an issue with an employee, that issue needs to be discussed in a private setting so as to not embarrass the employee or raise attention to the issue. A weak manager reprimands employees in front of the entire staff, uses rage rather than reason to discipline employees, and makes a public spectacle of issues that should remain confidential.

# Support

When a group puts together a project or a solution to a company issue, the subordinates expect the manager to support the group's efforts fully. When a weak manager is faced with adversity, he often blames subordinates and does not back up his employees when important issues are brought to light. Staff members quickly lose respect for a manager that does not support his group, and this leads to turnover and a drop in morale.

Your organizational structure is what maintains the hierarchy in your organization, facilitates communication and keeps your organization running smoothly. Effective leadership and strong organizational structure are more important to the success of a company than technology, according to the International Institute of Management. In order to address an ineffective organizational structure, you first need to learn to identify the signs of a failing company framework.

#### **Breakdown in Communication**

If departments are no longer efficiently sharing information and processing data as they should be, then that is a problem with organizational communication. One of the causes of a breakdown in company communication is that departments have begun to act on their own. There are many reasons why this could happen including a lack of trust between departments, the feeling by one department that another department is incapable of performing its job or incompetent management in the departments. The departments bypass the organizational structure and communication begins to break down.

## **Quality Control Issues**

Organizational structure comes with a series of checks and balances that are designed to perform certain levels of quality control. The engineering department and the marketing department work together to create instruction manuals for products that the general public can use. Accounting works with sales to discuss client accounts and keep sales moving. When the organizational structure begins to deteriorate, these checks and balances will stop. The marketing group starts to create instruction manuals without extensive input from the marketing group and information gets left out. If quality control is becoming an issue, it may be because the organizational structure is breaking down.

## Low Morale

When departments are not communicating and individuals within those departments are getting reprimanded, morale in the company will begin to suffer. Employees start to ignore the organizational structure because of fear of discipline, they do not trust their manager or they no longer feel included in the overall success or operation of the company. In some cases employees may have multiple managers due to a breakdown in the company hierarchy, and this will cause confusion, according to employment expert Joan Lloyd writing on the Job Dig website. An alienated workforce with low morale is a product of a failing organizational structure.

#### **Customer Service**

An ineffective corporate structure sometimes lacks the ability to monitor interactions with the customers. If the sales group is not required to report customer issues to the customer service group, then the customer service people will be unaware of the problem if it should occur again. In an ineffective organizational structure, there is no cohesive way of handling customer issues. When customers contact the company, they may get three different answers if they talk to three different people. This causes a problem with customer retention and ongoing revenue. If you notice that your company is having a difficult time holding on to clients, you will want to check your organizational structure for problems.

# Q. 3 Identify a product in the market that has been in existence for 20 or more years and explain why it has been successful for so long?

Every product goes through the various life cycle phases of introduction, growth, maturity and decline.

## **Product Life Cycle**

The product life cycle (PLC) describes the life of a product in the market with respect to business/commercial costs and sales measures. It proceeds through multiple phases, involves many professional disciplines and requires a multitude of skills, tools and processes.

This is not to say that product lives cannot be extended – there are many good examples of this – but rather, each product has a 'natural' life through which it is expected to pass.

#### The stages of the product life cycle are:

- Introduction
- Growth

- Maturity
- Decline

# PLC management makes these three assumptions:

- Products have a limited life and, thus, every product has a life cycle.
- Product sales pass through distinct stages, each of which poses different challenges, problems and opportunities to its parent company.
- Products will have different marketing, financing, manufacturing, purchasing and human resource requirements at the various stages of its life cycle.

The product life cycle begins with the introduction stage. Just because a product successfully completes the launch stage and starts its life cycle, the company cannot take its success for granted.

A company must succeed at both developing new products and managing them in the face of changing tastes, technologies and competition. A good product manager should find new products to replace those that are in the declining stage of their life cycles; learning how to manage products optimally as they move from one stage to the next.

# Product Lifecycle Management Stage 1: Market Introduction

This stage is characterized by a low growth rate of sales as the product is newly launched and consumers may not know much about it. Traditionally, a company usually incurs losses rather than profits during this phase. Especially if the product is new on the market, users may not be aware of its true potential, necessitating widespread information and advertising campaigns through various media.

However, this stage also offers its share of opportunities. For example, there may be less competition. In some instances, a monopoly may be created if the product proves very effective and is in great demand.

Characteristics of the introduction stage are:

- High costs due to initial marketing, advertising, distribution and so on. Solin
- Sales volumes are low, increasing slowly
- There may be little to no competition
- Demand must be created through promotion and awareness campaigns
- Customers must be prompted to try the product.
- Little or no profit is made owing to high costs and low sales volumes

The growth stage is the period during which the product eventually and increasingly gains acceptance among consumers, the industry, and the wider general public. During this stage, the product or the innovation becomes accepted in the market, and as a result sales and revenues start to increase. Profits begin to be generated, though the break even point is likely to remain unbreached for a significant time-even until the next stage, depending on the cost and revenue structures.

Initial distribution is expanded further as demand starts to rise. Promotion is increased beyond the initially high levels, and word-of-mouth advertising leads to more and more potential customers hearing about the product, trying it out, and-if the company is lucky-choosing to use the product regularly. Repeat orders from initial buyers are also obtained.

If a monopoly was initially created, then it still exists in this stage. Because of this, the manufacturing company can look at ways to introduce new features, alterations, or other types of innovation to the product according to feedback from consumers and from the market in general. This would be done in order to maintain growth in sales and ensure that interest in the product continues to grow and not stagnate, thus maintaining the growth stage. In fact, the growth stage is seen as the best time to introduce product innovations, as it creates a positive image of the product and diminishes the presence of competitors who will be attempting to copy or improve the product, and present their own products as a substitute.

# Features of the growth stage:

- Costs reduced due to economies of scale: as production and distribution are ramped up, economies of scale kick in and reduce the per unit costs.
- Sales volume increases significantly: as the product increases in popularity, sales volumes increase.
- Profitability begins to rise: revenues begin to exceed costs, creating profit for the company
- Public awareness increases: through increased promotion, visibility and word of mouth, public awareness grows.
- Competition begins to increase with a few new players in establishing market
- Increased competition leads to price decreases: price wars may erupt, technology may get cheaper, or other factors can ultimately lead to falling prices.

During this stage, sales growth has started to slow down, and the product has already reached widespread acceptance in the market, in relative terms. Ultimately, during this stage, sales will peak. The company will want to prolong this phase so as to avoid decline, and this desire leads to new innovation and features in order to continue to compete with the competition which, by now, has become very established, advanced and fierce. Competitors 'products will begin to cut deeply into the company's market position and market share. However, despite this, sales continue to grow in the early part of the maturity phase. But, these sales will peak and ultimately decline, as the graph shows.

Demand for the product ultimately decreases due to competition and market saturation, as well as new technologies and changes in consumer tastes. Actions the company takes may include:

- Improving specific features in order to resell the product (for instance, in the case of a car, the
  manufacturer may include alloy wheels, new colors, sport or hybrid versions, or other changes in order to
  keep sales going);
- Lowering prices in order to fight off competition;
- Intensifying distribution and promotional efforts;
- Differentiation efforts, in the hope that new customers will start to buy the product.
- Finding a new targeted market.

The stage that lasts the longest in the product life cycle is the Maturity stage. It is at this time that repeat business and purchases take the place of new customer buying. So, during the maturity stage, the following occurs:

- Costs are lowered as a result of production volumes increasing and experience curve effects
- Sales volume peaks and market saturation is reached
- Increase in numbers of competitors entering the market
- Prices tend to drop due to the proliferation of competing products
- Brand differentiation and feature diversification is emphasized to maintain or increase market share
- Industrial profits go down

# Q. 4 What are the ethical issues involved in collecting data during marketing research process?

Marketing research has experienced a resurgence with the widespread use of the internet and the popularity of social networking. It is easier than ever before for companies to connect directly with customers and collect individual information that goes into a computer database to be matched with other pieces of data collected during unrelated transactions. The way a company conducts its market research these days can have serious ethical repercussions, impacting the lives of consumers in ways that have yet to be fully understood. Further, companies can be faced with a public backlash if their market research practices are perceived as unethical.

# **The Use of Deceptive Practices**

The ease with which a company can access and gather data about its customers can lead to deceptive practices and dishonesty in the company's research methods. This type of ethical problem can run the gamut — from not telling customers that information is being collected when they visit a website to misrepresenting research results by using faulty data. At no time should a researcher ever coerce or pressure a respondent to give a particular answer. Any action that uses lies and deception to find out or establish information about consumer opinions falls under this category.

Another deceptive technique is known as SUGGING, the practice of selling under the guise of research. With this method, a salesman contacts an individual by phone posing as a market researcher. As they ask questions, supposedly in the name of research, they are in fact gaining information about a potential sales lead or even leading the person toward developing a bias for a particular product.

# **Invasion of Privacy**

One of the most serious ethical considerations involved in market research is invasion of privacy. Companies have an unprecedented ability to collect, store and match information relating to customers that can infringe on a person's right to privacy. In many instances, the customer does not know or understand the extent of the company's infiltration into his life. The company uses this information to reach the customer with targeted advertising, but the process of targeting can have a chilling effect on personal freedom. Recent laws such as

the EU's GDPR have increased punishments and fines for data privacy violations. Similarly, California has adopted a new law granting greater protections to resident consumers as well.

# **Breaches of Confidentiality**

Another significant ethical consideration involved in market research involves breaches of confidentiality. Companies regularly share information about customers with partners and affiliates, requiring the customer to opt-out of the sharing if he doesn't want to be involved. (US and EU have different standards.) Some companies sell information they have gathered on customers to outside companies. Ethically, any unauthorized disclosure of customer information is problematic.

# **Undertaking Objective Market Research**

Marketing and advertising have a significant impact on public perceptions. Market researchers have an ethical obligation to conduct research objectively, so that available data allows for the development of a balanced or reality-based picture. Researchers who allow their own prejudices to skew their work tend to contribute to the perpetuation of stereotypes in advertising, the development of destructive social constructs and the enabling of unjust profiting from poverty. For example, a market researcher with a one-dimensional view of minorities could do a fair amount of harm if allowed to shape an advertising campaign based on skewed data collection. Companies and other organizations use marketing research to manage the risks associated with offering new products and services. These organizations don't want to spend too much money developing a product line that research indicates will be unsuccessful. A well-designed and well-executed marketing study can go a long way towards identifying consumer tastes and demographic preferences to help with a product launch. However, several common types of problems occur with market research that can make it overly costly and produce results of questionable value for the organization.

## **Poor Survey Design**

Organizations use marketing research to find out what customers think and what they want. The survey is a direct way of collecting quantitative, or numerical, information and qualitative, or descriptive, information. When there are errors in the survey design, marketing research problems can surface.

For example, a company might use a method that is designed to collect a random sample from the target consumer population, but the method is not really random. Therefore, the organization cannot generalize its survey results to represent the target population. Similarly, poorly-worded survey questions can lead to ambiguous results from respondents who didn't grasp the intent of the question.

## **Survey Nonresponse**

One marketing research problem relates to how the survey is offered to the target population. Marketers design a survey that many customers choose not to respond to. They look at reasons why people don't want to participate, and they might reach conclusions such as the survey takes too much effort or that the incentive for participation is not appealing to respondents.

## Tip

Survey respondents are rarely willing to spend more than a few minutes on a voluntary survey. For longer efforts, consider offering some sort of compensation such as cash, a gift card, or a free product to encourage participation.

## The Problem of Survey Bias

A survey might include one or more sources of bias. Marketers might believe, for example, that they have created an online survey to appeal to respondents of all ethnic backgrounds, but the survey questions, and even images, might be biased to favor one ethnic group or could offend one or more ethnic groups.

The famous image of the "Dewey Defeats Truman" newspaper headline in 1948 was the result of survey bias. The journalists had surveyed voters by telephone, thereby missing the opinions of the many voters that did not have telephones at the time.

A survey's format and content must be acceptable to all audiences from which marketers seek to gather information.

#### **Issues with Observation Research**

Some marketing research involves observing consumers in action and noting their preferences. Marketers can become intrusive, interfering with a consumer's experience to the point that a consumer feels disgusted and leaves the business site. For example, a fast-food chain's researchers need to determine if there is a need for a new location of its store so they survey people going through the drive-through line. Although researchers conduct a short survey, they aggravate customers by slowing down the line.

A market survey is a more complicated undertaking than it might, at first, appear. You might want to employ the services of marketing professionals if you do not have someone on staff with survey design experience.

# Q. 5 What is the logic behind break-even analysis? Explain with example the limitations of break-even analysis.

Break-even point represents that volume of production where total costs equal to total sales revenue resulting into a no-profit no-loss situation.

If output of any product falls below that point there is loss; and if output exceeds that point there is profit.

Thus, it is the minimum point of production where total costs are recovered. Therefore, at break-even point.

Sales Revenue – Total Cost

or, Sales – Variable Cost = Contribution = Fixed Cost

It can be concluded that at break-even point the contribution earned just covers the fixed cost and, at levels below the point, contribution earned is not sufficient to match the fixed cost and, at levels above the point, contribution earned more than recovers the fixed cost.

P is the break-even point in the break-even chart where OS and CT—being the sales line and total cost line—intersects. Loss results in the left side of P, i.e., before the break-even point is reached, and, beyond P, profit

starts to generate. Break-even point has a wide use in the field of marginal costing and helps to decide the product mix, fixation of selling price, steps to be taken in long-term planning etc.

# Break-even point can be ascertained by using the following formula:

# **Assumptions Underlying Break-Even Analysis:**

The break-even analysis is based on certain assumptions.

#### They are:

- (i) All costs can be separated into fixed and variable components,
- (ii) Fixed costs will remain constant at all volumes of output,
- (iii) Variable costs will fluctuate in direct proportion to volume of output,
- (iv) Selling price will remain constant,
- (v) Product-mix will remain unchanged,
- (vi) The number of units of sales will coincide with the units produced so that there is no opening or closing stock,
- (vii) Productivity per worker will remain unchanged,
- (viii) There will be no change in the general price level.

# **Uses of Break-Even Analysis:**

- (i) It helps in the determination of selling price which will give the desired profits.
- (ii) It helps in the fixation of sales volume to cover a given return on capital employed.
- (iii) It helps in forecasting costs and profit as a result of change in volume.
- (iv) It gives suggestions for shift in sales mix.
- (v) It helps in making inter-firm comparison of profitability.
- (vi) It helps in determination of costs and revenue at various levels of output.
- (vii) It is an aid in management decision-making (e.g., make or buy, introducing a product etc.), forecasting, long-term planning and maintaining profitability.
- (viii) It reveals business strength and profit earning capacity of a concern without much difficulty and effort.

# **Limitations of Break-Even Analysis:**

- 1. Break-even analysis is based on the assumption that all costs and expenses can be clearly separated into fixed and variable components. In practice, however, it may not be possible to achieve a clear-cut division of costs into fixed and variable types.
- 2. It assumes that fixed costs remain constant at all levels of activity. It should be noted that fixed costs tend to vary beyond a certain level of activity.
- 3. It assumes that variable costs vary proportionately with the volume of output. In practice, they move, no doubt, in sympathy with volume of output, but not necessarily in direct proportions..

- 4. The assumption that selling price remains unchanged gives a straight revenue line which may not be true. Selling price of a product depends upon certain factors like market demand and supply, competition etc., so it, too, hardly remains constant.
- 5. The assumption that only one product is produced or that product mix will remain unchanged is difficult to find in practice.
- 6. Apportionment of fixed cost over a variety of products poses a problem.
- 7. It assumes that the business conditions may not change which is not true.
- 8. It assumes that production and sales quantities are equal and there will be no change in opening and closing stock of finished product, these do not hold good in practice.
- important 9. The break-even analysis does not take into consideration the amount of capital employed in the business. In fact, capital employed is an important determinant of the profitability of a concern.