**ASSIGNMENTS 4**

# Diploma in procurement and supply chain management

# ASSIGNMENTS-4

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1. **What is Value chain analysis and what its main elements?**

According to Michael Porte is that; the Value chain analysis is a strategy tool used to analyze internal firm activities. Its goal is to recognize, which activities are the most valuable (i.e. are the source of cost or differentiation advantage) to the firm and which ones could be improved to provide competitive advantage. In other words, by looking into internal activities, the analysis reveals where a firm’s competitive advantages or disadvantages are. The firm that competes through differentiation advantage will try to perform its activities better than competitors would do. If it competes through cost advantage, it will try to perform internal activities at lower costs than competitors would do. When a company is capable of producing goods at lower costs than the market price or to provide superior products, it earns profits.

M. Porter introduced the generic value chain model in 1985. Value chain represents all the internal activities a firm engages in to produce goods and services. VC is formed of primary activities that add value to the final product directly and support activities that add value indirectly.

**The main elements of value chain are**

When executives choose strategies, an organization’s resources and capabilities should be examined alongside consideration of its value chain. A value chain charts the path by which products and services are created and eventually sold to customers. The term value chain reflects the fact that, as each step of this path is completed, the product becomes more valuable than it was at the previous step. Adding Value within a Value Chain Within the lumber business, for example, value is added when a tree is transformed into usable wooden boards; the boards created from a tree can be sold for more money than the price of the tree.

• Primary activities are actions that are directly involved in creating and distributing goods and services. Consider a simple illustrative example: doughnut shops. Doughnut shops transform basic commodity products such as flour, sugar, butter, and grease into delectable treats. Value is added through this process because consumers are willing to pay much more for doughnuts than they would be willing to pay for the underlying ingredients.

There are five primary activities:

I. **Inbound logistics:** refers to the arrival of raw materials. Although doughnuts are seen by most consumers as notoriously unhealthy, the Doughnut Plant in New York City has carved out a unique niche for itself by obtaining organic ingredients from a local farmer’s market.

II. **An operation:** refers to the actual production process, while

III. **An outbound logistics:** tracks the movement of a finished product to customers. One of Southwest Airlines’ unique capabilities is moving passengers more quickly than its rivals. This advantage in operations is based in part on Southwest’s reliance on one type of airplane (which speeds maintenance) and its avoidance of advance seat assignments (which accelerates the passenger boarding process).

IV. **While service**: refers to the extent to which a firm provides assistance to their customers. Voodoo Donuts in Portland, Oregon, has developed a clever website (voodoodoughnut.com) that helps customers understand their uniquely named products, such as the Voodoo Doll, the Texas Challenge, the Memphis Mafia, and the Dirty Snowball.

**V. Marketing & sales:** Sales include “operations and activities involved in promoting and selling goods or services.” Marketing includes “the process or technique of promoting, selling, and distributing a product or service.”

• Secondary activities are not directly involved in the evolution of a product but instead provide important underlying support for primary activities. Firm infrastructure refers to how the firm is organized and led by executives. The effects of this organizing and leadership can be profound. For example, Ron Joyce’s leadership of Canadian doughnut shop chain Tim Hortons was so successful that Canadians consume more doughnuts per person than all other countries. In terms of resource-based theory, Joyce’s leadership was clearly a valuable and rare resource that helped his firm prosper.

Also important is human resource management, which involves the recruitment, training, and compensation of employees. A recent research study used data from more than twelve thousand organizations to demonstrate that the knowledge, skills, and abilities of a firm’s employees can act as a strategic resource and strongly influence the firm’s performance.

1. **What are the seven variables which production personnel‘s should zero in?**

The seven Variables which production personnel’s should zero in Variable factors are those that do change with output, which means more are employed when production increases, and less when production decreases. Typical variable factors include labor, energy, raw materials, capital, entrepreneur, time, and land are directly used in production.

1. **Raw materials:** raw materials are refer to as inputs for production and are directly used for production to produced finish goods for sales and used in business running. And they are variables because they can be scared or the source can get affected by factor, either man made or natural problem; production department may lack timbers for making furniture due to shortage of supply which may lead to inefficiency in productivity. Therefore, it variable in a sense that the productivity decreased.

**II. Capital:** In short run, capital is a fixed factor and not a variable factor because in short run factors like capital, machinery etc are held constant and variable factors like labour, power etc changes as per the level of output generated. While in long run, nothing is held constant, not even capital.

**III. Labor:** Fixed costs remain the same whether production increases or decreases. Wages paid to workers for their regular hours are a fixed cost. Any extra time they spend on the job is a variable cost. In a factory that makes dresses, the variable costs are the fabric and the labor used to make the dresses.

**IV. Energy:** Pros, If you're on a fixed tariff and wholesale energy prices increase, or your supplier announces a price rise, your unit rates won't change. Fixed rate tariffs can be good value and cheaper than variable rate tariffs (although not always, so do your research).Jan 21, 2019

**V. Entrepreneur:** Fixed expenses and variable expenses:

a) Fixed expenses or costs are those that do not fluctuate with changes in production level or sales volume. They include such expenses as rent, insurance, dues and subscriptions, equipment leases, payments on loans, depreciation, management salaries, and advertising.

b) while, Variable costs are those that respond directly and proportionately to changes in activity level or volume, such as raw materials, hourly production wages, sales commissions, inventory, packaging supplies, and shipping costs. Therefore, entrepreneur is both fixed and variable.

VI. Time:

VII. Land: land a fixed variable factor

1. **What is Just in Time management system? Is JIT utopia? Can it be made to work? Work? What is its philosophic approach in terms of Batch size?**

*According, to Kiyoshi Suzuki.* 1987, . The just-in-time (JIT) inventory system is a management strategy that aligns raw material orders from suppliers directly with production schedules. ... The JIT inventory system contrasts with just-in-case strategies, wherein producers hold sufficient inventories to have enough products to absorb maximum market demand. May 10, 2019

It originally referred to the production of goods to meet customer demand exactly, in time, quality and quantity, whether the `customer' is the final purchaser of the product or another process further along the production line.

It has now come to mean producing with minimum waste. "Waste" is taken in its most general sense and includes time and resources as well as materials. Elements of JIT include:

• Continuous improvement.

Attacking fundamental problems anything that does not add value to the product.

Devising systems to identify problems, Striving for simplicity- simpler systems may be easier to understand, easier to manage and less likely to go wrong.

A product oriented layout - produces less time spent moving of materials and parts.

Quality control at source - each worker is responsible for the quality of their own output.

• Eliminating waste. There are seven types of waste:

Waste from overproduction.

Waste of waiting time.

Transportation waste.

Processing waste.

Inventory waste.

Waste of motion.

Waste from product defects.

• Good housekeeping - workplace cleanliness and organization.

Set-up time reduction - increases flexibility and allows smaller batches. Ideal batch size is 1item. Multi-process handling - a multi-skilled workforce has greater productivity, flexibility and job satisfaction.

• Workers are highly motivated to seek constant improvement upon that which already exists. Although high standards are currently being met, there exist even higher standards to achieve.

• Companies focus on group effort which involves the combining of talents and sharing knowledge, problem-solving skills, ideas and the achievement of a common goal.

• Work itself takes precedence over leisure. It is not unusual for a Japanese employee to work 14-hour days.

• Employees tend to remain with one company throughout the course of their career span. This allows the opportunity for them to hone their skills and abilities at a constant rate while offering numerous benefits to the company.

These benefits manifest themselves in employee loyalty, low turnover costs and fulfillment of company goals.

1. **How can computers aid in development, analysis and Forecasting?**

In today’s highly competitive business world, firms strive to increase productivity and slash costs. In fact, a growing number of companies are institut¬ing austerity programmes to cut layers of corporate management, especially on the international side.

a) Computers play a critical role in this effort. By automating finance, companies can reduce labor costs and dramatically improve the speed and accuracy of many routine tasks.

For example, the controller of a leading American automobile manufacturer believes that computers are essential for producing a cost-competitive car. By using computers it is possible to reduce labor costs considerably and produce less expensive cars.

b) Computers help Companies Manage Globalized Businesses:

As part of their drive to be competitive many companies now turn each of their component businesses as world-wide organizations, and plan their manufacturing and sourcing strategies on a global basis. To manage their far-flung operations effectively, firms increasingly turn to computers.

**Forecasting**

In the present age of uncertainty and information revolution managerial focus has shifted to improving the decision-making process in business and government. The key point in decision-making is accurate forecasts. In the area of marketing, for instance, forecasts of market size and market characteristics must be reliable.

A company producing and selling ***refrigerators, T.Vs. etc***., must make accurate forecasts of both regional market demand and types of customers. Based on this forecast, decisions regarding advertising and other sales promotion efforts are taken.

In the area of production management also there is need for forecasting. Product demand and product mix, production scheduling, inventory holding, labor scheduling, equipment purchase, plant capacity planning, maintenance, etc., are all based on such forecasts.

In finance and accounting, forecasting is of strategic importance in the area of cash flows, debt collection, capital expenditure rates, working capital management etc. Even the personnel department is required to make manpower planning which is nothing other than forecast for different types of human resources required in business now and in the future.

1. **Describe the role of supporting computerized system in book keeping? processing and delivering of orders from customers?**

**a) Supporting computerized system in bookkeeping**

• T he advantages of computerized accounting include fast, complex reporting. Computerized systems can produce invoices, purchase orders and other documents more quickly. Many reports are automatically updated and instantly available

• Computerized systems allow for greater efficiency in performing specific tasks both more accurately and more rapidly than doing the same task using, for example, a pencil and paper or a pencil and ledger book. Computerized systems also offer storage capacity efficiency.

• Doing the same task using, for example, a pencil and paper or a pencil and ledger book. Computerized systems also offer storage capacity efficiency. For example, a computerized system's hard drive taking up a relatively small amount of space can store a large collection of business or personal documents. A paper-based system, in contrast, would take up at least one, and usually more, file cabinets for storage of the same document collection.

**b) Processing and delivering of orders from customer.**

According to ***N. Viswanadham;*** Order processing is the process or work-flow associated with the picking, packing and delivery of the packed items to a shipping carrier. Order processing is a key element of order fulfillment. Order processing operations or facilities are commonly called "distribution centers

While the order-to-delivery process (ODP) is the principal means by which buyers or customers communicate with sellers, the final sale transaction is made, and cash is generated for the seller. It is a customer-facing process and is a key to operational efficiency and customer satisfaction.

**6. What is flexible manufacturing system? Can use of computers facilitate it and why?**

A flexible manufacturing system (FMS) is a method for producing goods that is readily adaptable to changes in the product being manufactured, both in type and quantity. Machines and computerized systems are configured to manufacture different parts and handle varying levels of production. (Apr 28, 2019)

A flexible manufacturing system (FMS) is an integrated group of processing CNC machines and material-handling equipment under computer control for the automatic processing of palletized parts. FMSs represent a compromise between the high flexibility of versatile job shops and the high production rate of a dedicated mass production system (e.g., transfer lines). It is capable of producing limited number of preplanned part families and utilizes similarities between members of a parts family based on group technology. FMSs are most suited for the mid-variety, mid-volume production range, exploiting the benefits of the Economy of Scope while achieving the efficiencies of the Economy of Scale (ElMaraghy 2006). Moreover, flexible manufacturing is capable of responding quickly to increasing product variants and decreasing quantities per variant (ElMaraghy et al. 2013).

The reason behind the attribute “flexible” is that FMSs are capable of processing an assortment of different part variants belonging to the same family simultaneously at the various workstations, and the mix of part styles and quantities of production can be adjusted in response to changing demand patterns.

The ability to process many different parts within FMSs with minimum engineering effort and changeover time requires both physical and logical enablers

(ElMaraghy 2006; Wiendahl et al. 2007):

References

Question1. Michael Porter value chain

<https://www.strategicmanagementinsight.com/tools/value-chain-analysis.html>

question2.

John L Burbidge, 25- 1984

. <https://www.investopedia.com/terms/j/jit.asp>

Question3. Paul J.Fortier, Howard Michei, PHD 2003

Question .4 [www.economisdiscussion.net/articles/use](http://www.economisdiscussion.net/articles/use)

question 5. <https://link.springer.com/chapter/10.1007/978-1-4615-4645_7>.

By N.Viswanadham 2000

Question 6. <https://www.investopedia.com/terms/f/flexible-manufacturing-system.asp>