

Value Chain Analysis

Value chain

Competitive advantage arises from the numerous activities a firm performs in designing, producing, marketing, delivering, and supporting its product. In order to understand and analyze the sources of competitive advantage it is necessary to examine all the activities a firm performs

A Value chain Analysis is used as a basic tool for analyzing the resources which determines the competitive advantage of a firm. It is a systematic way to examine all the activities that a firm performs and how they interact with each other.

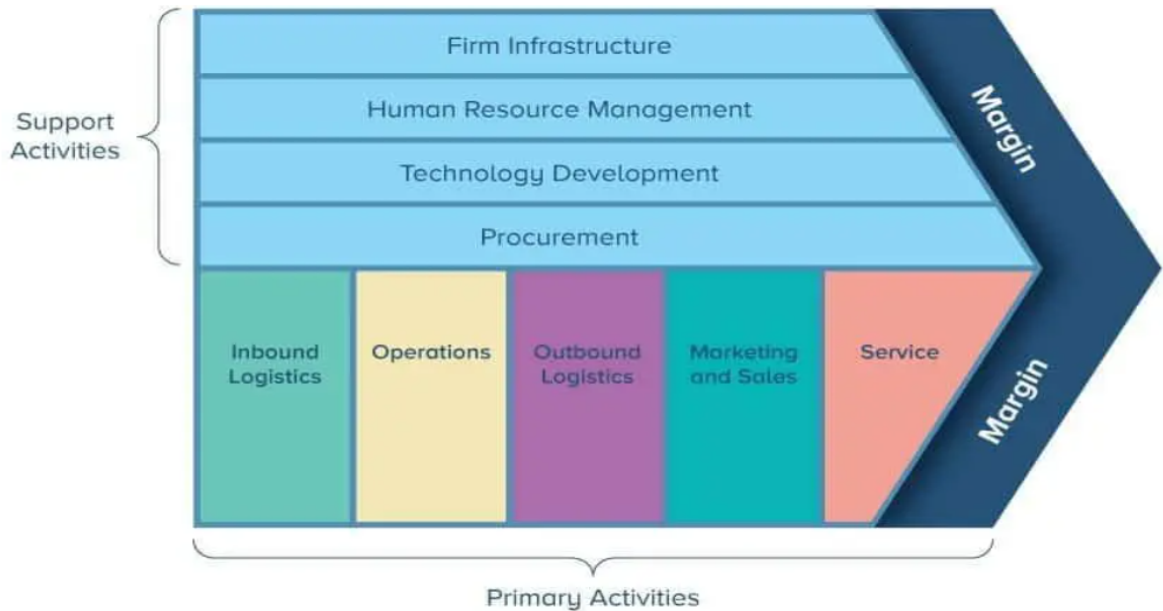
The Value chain segregates various strategic relevant activities that a firm offers in order to understand the behavior of costs and the existing and potential sources of differentiation. A firm gains competitive advantage by performing these strategically important activities more cheaply or better than its competitors.

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The value chain of firms in an industry differs reflecting their histories, strategies and success at implementation. One important difference is that a firm's value chain may differ in competitive scope from that of its competitors representing a potential scope of competitive advantage.

Serving only a particular industry segment may allow a firm to tailor its value chain to that segment and this results in lower cost or differentiation in serving that segment as compared to its competitors. Widening or narrowing the geographic markets served can also affect the competitive advantage. Further competing in related industries with coordinated value chain can lead to competitive advantage through interrelationships.

Every firm is a collection of activities that are performed to design, produce, market, deliver and support its products. All these activities can be represented using a value chain as shown in the figure.



Single- Industry Firm



In competitive terms, value is the amount the buyer is willing to pay for what a firm provides them. Value is measured by total revenue; a reflection of the price a firm's product commands and the unit it can sell. A firm is profitable if the value it commands exceeds the costs involved in creating the product. Creating value for buyers that exceeds the cost of doing it is the goal of any generic strategy.

The value chain displays total value and consists of value activities and margin. Value activities are the physically and technologically distinct activities that a firm performs. These are the building blocks by which a firm creates a product valuable to its buyers.

Margin is the difference between total value and the collective cost of performing the value activities.

Value activities can be divided into two broad categories. Primary activities and Support activities. Primary activities are those activities which are involved in the physical creation of the product and its sale and transfer to the buyer as well as after sale assistance. Support activities support the primary activities and each other by providing purchased inputs, technology, human resources and various firmwide functions. The dotted lines reflect the fact that procurement, technology development and human resource management can be associated with specific primary activities as well as support the entire chain. Firm infrastructure is not associated with particular primary activities but supports the entire chain.

By comparing the value chain of the competitors, it is possible to determine the competitive advantage.

Primary Activities

There are five generic categories of primary activities involved in competing in any industry. Each category is divisible into several distinct activities that depend on the industry and firm strategy. These are:

1. Inbound Logistics: Inbound Logistics include the activities associated with receiving, storing, and disseminating inputs to the product such as material handling, warehousing, inventory control, vehicle scheduling and returns to suppliers.

2. Operations: Activities associated with transforming inputs into the final product form such as machining, packaging, assembly, equipment maintenance, testing, printing and facility operations.

3. Outbound Logistics: It includes the activities associated with collecting, storing and physically distributing the product to buyers, such as finished goods warehousing, material handling, delivery vehicle operations, order processing, and scheduling.

4. **Marketing and Sales:** These are the activities associated with providing a means by which buyers can purchase the product and inducing them to do so, such as advertising, promotion, sales force, quoting, channel relations and pricing.

5. **Service:** It includes activities associated with providing service to enhance or maintain the value of the product, such as installation, repair, training, parts supply and product adjustment.

Support Activities: These activities ensure that the primary activities are carried out efficiently and effectively. These activities can be divided into four generic categories. These are

1.**Procurement:** It refers to the function of purchasing inputs used in the firm's value chain, not to the purchased inputs themselves. Purchased inputs include raw materials, supplies and other consumable items as well as assets such as machinery, laboratory equipment, office equipment and buildings.

2.**Technology Development:** Every value activity embodies technology, be it know-how, procedures or technology embodied in process equipment. The array of technologies employed in most firms is very broad, ranging from those technologies used in preparing documents and transporting goods to those technologies embodied in the product itself. Moreover most value activities use a technology that combines a number of different sub technologies involving different scientific disciplines. Machining, for example, involves metallurgy, electronics, and mechanics.

3.**Human Resource Management:** It consists of activities involved in recruiting, hiring, training, development, and compensation of all types of personnel. Human Resource Management supports both individual primary and support activities (e.g. hiring of managers) and the entire value chain (e.g. labour negotiations)

4.**Firm Infrastructure:** Firm infrastructure consists of several activities including general management, planning, finance, accounting, legal, govt. affairs and quality management. Infrastructure usually supports the entire chain and not individual activities. Depending on whether a firm is diversified or not, firm infrastructure may be self-contained or divided between a business unit and the parent corporation.



Fig. Typical Value Chain of a Manufacturing Company

The value chains of most industries can be split into two segments, upstream and downstream halves. In the petroleum industry, for example, upstream refers to oil exploration, drilling and moving the crude oil to refinery. Whereas downstream refers to refining the oil plus the transporting and marketing of gasoline and refined oil to distributors and gas station retailers. Although most large oil companies are completely integrated, they often vary in the amount of expertise they have at each part of the value chain. Texaco, for example, has its greatest expertise in downstream activities like marketing and retailing. Whereas Companies like BP-Amoco are more dominant in upstream activities like exploration.

Very few Companies have expertise over a product's entire value chain. Ford Motor Company had its presence in the entire value chain during the 1920s and 1930s when it was managed by the founder Henry Ford I. The Company owned iron mines, ore-carrying ships and rail line to bring ore to the plant. Once the automobile is manufactured the Company's trucks would deliver it to the dealers. Ford Motor Company at that time was completely vertically integrated. It controlled every stage of the value chain from the iron mines to the retailer.

An Industry can be analyzed in terms of the profit margin available at any one point along the value chain. For example, the US auto industry's revenues and profits are divided among many value chain activities, including manufacturing, new and used car sales, Insurance, after sales services and parts and lease financing. From a revenue standpoint, auto manufacturers dominate the industry, accounting for almost 60% of the total industry revenues. However, the same is not true so far as the profit is concerned. Auto leasing is the most profitable activity in the value chain followed by insurance and auto loans. The core activities of manufacturing and distribution, however, earn significantly smaller shares of the total industry profits than they do of total revenues.

For example, since auto sales have become marginally profitable, dealerships are now emphasizing service and repair. As a result of differences along the industry value chain, manufacturers have moved aggressively into auto financing. Ford, for example, generate nearly half of it's profits from auto financing, even though financing accounts for less than 20% of the company's revenues.

In analyzing the complete value chain of a product, it can be observed that even if a firm operates up and down the entire value chain, it usually has an area of primary expertise known as it's centre of gravity, which is its core competency. For example in Paper Industry, Weyerhaeuser's expertise is in lumbering and pulp mills and it is where the Company had started its operation. Thus Weyerhaeuser's center of gravity is in the raw materials and primary manufacturing as shown in figure, In contrast ,Proctor & Gamble is primarily a consumer products company that also owned timberland and operated pulp mills. It's expertise is as the product producer and distributor as shown in figure.