

*Competitive advantage diagnosis via value chain analysis (A proposed model)**Competitive advantage diagnosis via value chain analysis**(A proposed model)**Pr Aziza Bensmina**M. Wahiba Abbassi**Biskra University***Abstract:**

This paper offers an overview on the process in which value chain diagnose the competitive advantage of a business. We start by determining the basic concepts of both competitive advantage and value chain model, underlining the importance of each in success creation for companies. Finally, we provide a full description of value chain analysis steps diagnosing competitive advantage, proposing at last a summarized model of that important analytic process.

Key words: Competitive advantage - Value chain - Value chain analysis.

Résumé :

Ce document explique le processus où la chaîne de valeur diagnostique l'avantage concurrentiel d'entreprise. D'abord on détermine les concepts du modèle de la chaîne de valeur et de l'avantage concurrentiel, soulignant leur importance dans le succès des entreprises. Enfin, on fournit une description des étapes de l'analyse de la chaîne de valeur dans le diagnostic de l'avantage concurrentiel, proposant un modèle résumé qui affiche ce processus analytique important.

Mot Clés : Avantage concurrentiel, chaîne de valeur, Analyse de la chaîne de valeur.

الملخص:

تقدم هذه الورقة شرحا عاما حول العملية التي يتم من خلالها تشخيص الميزة التنافسية بالمؤسسة بالاعتماد على نموذج سلسلة القيمة ومن هنا، سيتم تحديد المفاهيم الأساسية المتعلقة بكل من الميزة التنافسية ونموذج سلسلة القيمة، مع إبراز أهميتهما بالنسبة للمؤسسة فيما يتعلق بتحقيق التفوق التنافسي. وأخيرا، هذه الورقة تقدم وصفا كاملا لكامل خطوات تحليل سلسلة القيمة في تشخيص الميزة التنافسية، مع اقتراح نموذج مختصر يبرز من خلاله تلك العملية التحليلية المهمة.

الكلمات المفتاحية: الميزة التنافسية، سلسلة القيمة، تحليل سلسلة القيمة.

Introduction:

Nowadays, companies have entered the era of continuing worldwide advances in technology and increasing in fierce competition. These advances have emerged competitive advantage as an important mean to keep companies ahead in their complex and competitive environment, this also emerged many ways and techniques to study and make a full diagnosis of competitive advantage at the internal or the external level of a company, in order to create, develop and maintain it.

The aim of this paper is to affirm the importance of value chain analysis in creating, developing and sustaining competitive advantage in companies, as this analysis has emerged as an efficient system in facilitating the gathering and transformation of information about competencies, advantages or disadvantages from inputs to outputs, in a very organized and specific way.

To provide details about the methods and process in which value chain is used to diagnose competitive advantage, this paper is built on answering this key question: **What Process in value chain analysis to diagnose and asses competitive advantage in a company?** Depending on the descriptive method, and in order to answer that question we divided this work into three main axes:

*Competitive advantage diagnosis via value chain analysis (A proposed model)***I- Conceptual framework of competitive advantage.****II- Value chain model.****III- Value chain analysis diagnosing Competitive advantage.****I- Conceptual framework of competitive advantage :****1- Defining competitive advantage:**

A competitive advantage is a set of unique features of a company and its products that are perceived by the target market as significant and superior to those of the competition.¹

Competitive advantage is achieved when an organization has a significant and sustainable edge over its competitors, when attracting buyers. Advantage can also be secured by coping with the competitive forces better than its rivals. Advantage can be developed in many different ways. Some companies have an advantage simply because they are the best-known company or brand in the market. Some achieve it by producing the best-quality product or having attributes that other products do not have, some companies have the lowest price, whereas others provide the best support and service in the industry.²

Competitive advantage is ultimately built and maintained by adding value to customers. Value is added by cost leadership, i.e., offering equal quality products or services at a lower cost than competitors, or by differentiation, i.e., offering products and services that are perceived to be unique relative to some important characteristic.³

Michael Porter defined a business's competitive advantage as either being cost advantage or non-cost differentiation advantage; some contemporary experts suggest that companies must drive both to stay competitive.⁴

2- Competitive advantage drivers:

According to porter (1985), "competitive advantage cannot be understood by looking at a company as a whole. It stems from the many discrete activities a firm performs in designing, producing, marketing, delivering and supporting its product. Each of these activities can contribute to firm's relative cost position and create a basis for differentiation." The main drivers are as follows:⁵

a- Differentiation Drivers: Porter identified several drivers of uniqueness: policy and decision; linkages among activities; inter-relationships among business units integration; scale; learning; timing of market entry; geographic location; institutional factors (regulation, union activity, taxes etc.).

b- Cost Drivers: Porter identified 10 Cost drivers related to value chain activities; economies of scale; learning; capacity utilization; linkages among activities; interrelationship among business units; degree of vertical integration; timing of market entry; company's policy of cost; timing of market entry; company's policy of cost or differentiation; Geographic location and Institutional factors (regulation, union activity, taxes etc.). A cost advantage also can be pursued by reconfiguring the value chain. Reconfiguration means structural changes such as a new production process, new distribution channels etc.

II- Value chain model:

According to Porter's value chain model, the activities conducted in any organization can be divided into two categories: primary activities and support activities. The primary activities are those business activities that relate to the production and distribution of the company's products and services, thus creating value for which customers are willing to pay.⁶ While support activities are required to support the company's primary activities.

*Competitive advantage diagnosis via value chain analysis (A proposed model)***II-1- Primary activities:**

Porter's value chain model described the following five value generating "primary activities":⁷

a- Inbound logistics: Activities associated with receiving, storing, and disseminating inputs to the products, such as material handling, warehousing, inventory control, vehicle scheduling, and returns to suppliers.

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

c- Outbound logistics: Activities associated with collecting, storing and physically distributing the product to buyers, such as finished goods warehousing, material handling, delivery vehicle operation, order processing and scheduling.

d- Marketing and sales: Activities associated with providing a means by which buyers can purchase the product include advertising, promotion, sales-force, quoting, channel selection, channel relations, and pricing.

e- Service: Activities associated with providing service to enhance or maintain the value of the product such as installation, repair, training, parts, supply and product adjustment.

II-2- Support activities:

Support activities include all the important activities that cut across the company's primary activities and provide ongoing infra-structure assistance for the rest of the company. These activities differ by industry and company, but they generally include the following:⁸

a- Firm infrastructure: includes administrative support activities covering the range of primary activities, such as accounting, legal, planning, and all forms of stakeholder relations, such as government and public affairs, communications, community investment, and investor relations.

b- Human capital management: includes aspects of the company and its human capital enhancement process, such as recruitment, incentive systems, motivation, training, promotion, and industrial/labor relations.

c- Procurement: includes activities such as funding, subcontracting, supplier management, and specification.

d- Systems and technology: includes infrastructure facets of the business that help design, develop, and/or deliver products more effectively and efficiently, such as engineering, R&D, and information technology.

The following figure describes the main value chain model composants:

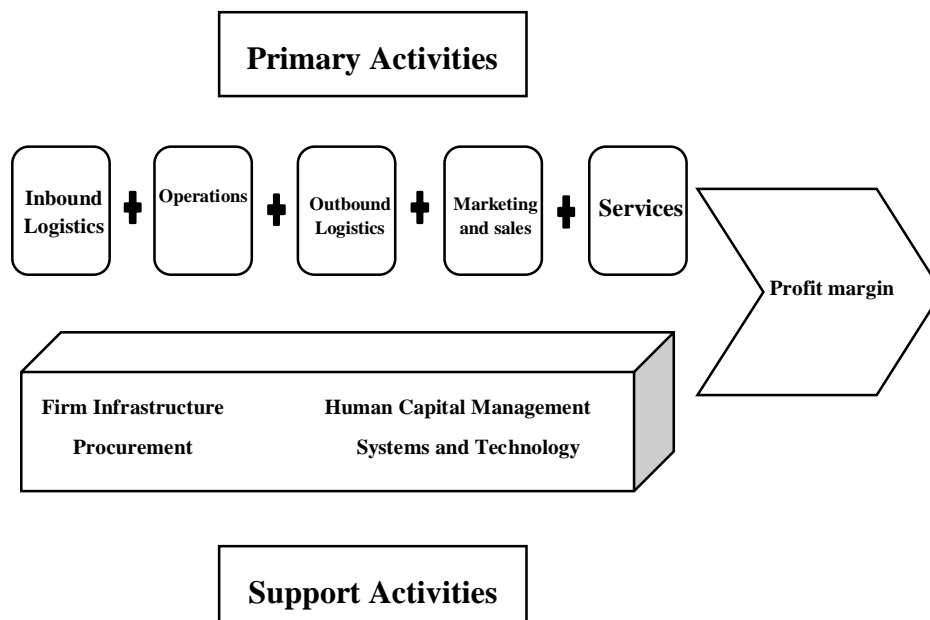


Figure 1: The value chain model:

Source: Babette E. Bensoussan, Craig S. Fleisher, *Analysis Without Paralysis: 12 Tools to Make Better Strategic Decisions*, Pearson Education, Inc, USA, Second edition, 2013, P222. Adapted from Porter, M.E, *Competitive advantage* (New york: The free press, 1985).

*Competitive advantage diagnosis via value chain analysis (A proposed model)***III- Value chain analysis diagnosing Competitive advantage :****II- 1- Necessity for competitive advantage diagnosis:**

Every company needs to figure out their own unique competitive advantage. What is it that makes the company "better" than the others in the same industry or category? If the answer is "nothing", then why does the company exist? Should the company exist if what it is producing or doing is not in some way "better" than the competition? Generally, in our capitalist and market-driven economies, the companies that are successful are those that have figured out their competitive advantage.⁹

Companies have to systematically and periodically go through the exercise of identifying their competitive advantage and the factors that produce the advantage. It may be argued that firms will generally be aware of their competitive advantage and the factors that bring in the advantages. The point is that in an environment wherein ever so many changes are taking place and so many new forces of competition are coming up all time, a firm can maintain its competitive edge only through continuous appraisal and monitoring of its competitive advantage.¹⁰

Porter (1985) developed the concept of the value chain as "the fundamental tool in diagnosing competitive advantage" because "a systematic way of examining all the activities a company performs and how they interact in necessary for analysing the sources of competitive advantage". In applying the value chain tool, activities within the companies are disaggregated into individual processes with specific inputs and outputs. Each process and links between processes can be evaluated in terms of their costs and the benefits they provide. Porter emphasized that the links between processes offer significant opportunities to optimize competitive advantage. He also emphasized the need to look beyond the company at the processes and links of downstream suppliers and upstream distributors and customers.¹¹

A company's value chain is part of larger industry value system, it includes the value-creating activities of all the industry participants, from raw-materials suppliers to the final consumer. value chain analysis separates the company's processes into strategically relevant value-creating activities. This analysis provides rich insight into where enhanced profitability can be achieved and helps you identify strategies needed to generate competitive advantage.¹²

III-2- Value chain analysis methods:

The value chain approach helps company's assess competitive advantage through an analysis of internal cost, internal differentiation, and vertical linkage.¹³

a- Internal cost analysis:

A number of companies use the value chain approach to determine both the sources of their profitability as well as the cost of their internal processes or activities, the principle steps of internal cost analysis are as follows:¹⁴

- Identifying the company's value-creating processes;
- Determining the share of the total cost of the product or service attributable to each value creating process;
- Identifying the factors of cost determinants (cost drivers) for each value-creating process;
- Identifying the links between processes; and
- Evaluating the opportunities for achieving relative cost advantage.

b- Internal differentiation analysis:

Internal Differentiation analysis is an examination of processes in the value chain to determine which of them create differentiation of the product or service in the costumer's eyes, and thus

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enhance its value. Internal differentiation analysis enables a company to focus on improving the identified processes to maximise competitive advantage. Steps involve:¹⁵

- Identification of value-creating activities;
- Evaluation of strategies that can enhance value for the customer;
- And assessment of which differentiation strategies are the most sustainable.

c- Vertical/Extended linkage analysis:¹⁶

Linkages among value-creating processes go beyond the activities within a company, usually, the greatest competitive advantage may emerge from linkages between a company's value-creating activities and those of its suppliers, channels, or users. Vertical linkage analysis takes into consideration all links from the source of raw materials to the disposal and/or recycling of the product. Vertical linkage analysis includes the following steps:

- Identifying the industry's value chain assigning costs, revenues, and assets to value-creating processes;
- Diagnosing the cost drivers for each value-creating process; and
- Evaluating the opportunities for sustainable competitive advantage.

III-3- Value chain analysis process:

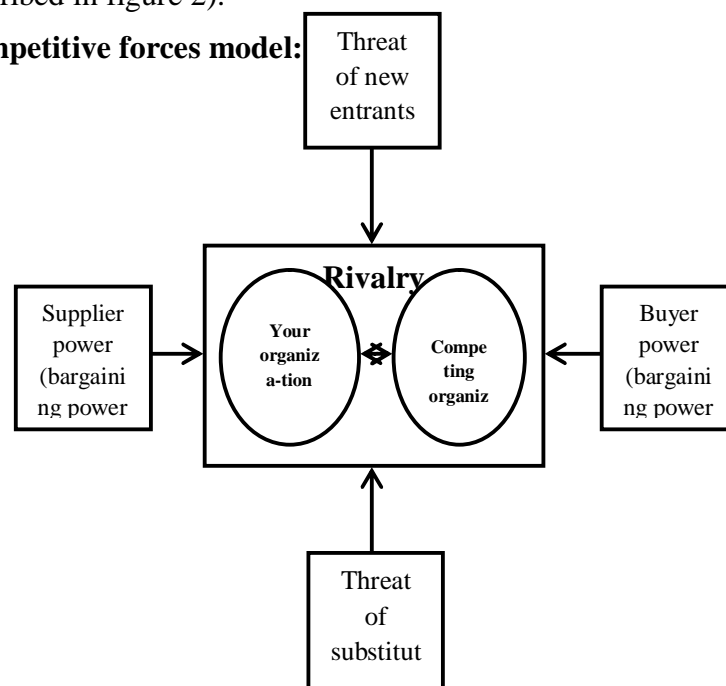
The resulting set of analyses can be organized around three frameworks:¹⁷

- Industry structure analysis.
- Core competency analysis.
- Segmentation analysis.

a- Industry structure analysis:

Industry structure analysis necessitates organizing information about any industry structure so as to assess its plausible attractiveness. The profitability of an industry or market, as determined by the average long-term return on investment of companies, depends on the bargaining power of buyers and suppliers, threat of substitute products or services, threat of new entrants, and intensity of competition.¹⁸ Industry structure is also named as competitive forces as defined by Michael porter (as described in figure 2):

Figure 2: Porter's competitive forces model:



Source: R. Kelly Rainer, Casey G. Cegielski, Introduction to Information Systems: Enabling and Transforming Business, John Wiley & Sons. Inc, USA, 2010, P46.

Competitive advantage diagnosis via value chain analysis (A proposed model)**b- Core competencies analysis:¹⁹**

Core competencies are a firm's unique skills and technologies derived from its proprietary assets, people, and processes. By definition, no two firms can have the same set of core competencies. The unique nature of core competencies enables firms to develop competitive advantages in the marketplace. One core competency can support several end products, and one end product can be the result of several core competencies. The competencies that are core to the firm are those generalized capabilities than span across several end products.

Conducting a core competency analysis is done in five steps:

- Step 1. Identify the company's end products.
- Step 2. Group the end products into businesses.
- Step 3. Identify the company's core products.
- Step 4. Identify the company's competencies.
- Step 5. Determine the implication of the identified core competencies.

Core competency analysis can:

- Be useful to review and justify the company's current portfolio for business.
- Allow firm-wide consolidation of technologies and production skills into competencies.
- Help determine new revenue creation opportunities.
- Assist in identifying and addressing capability gaps.
- Cause misinterpretation because of subjective nature and generalizations.
- Be time intensive and difficult to conduct for diversified corporations.
- Not yield and transferable core competencies.

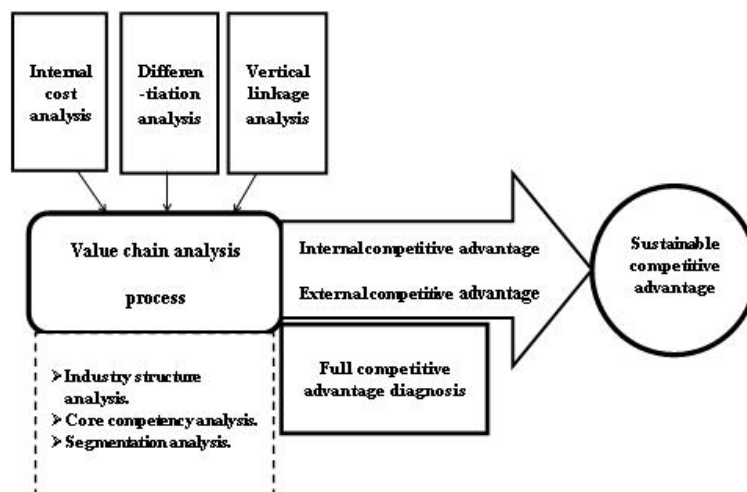
c- Segmentation analysis:

Any segmentation analysis must begin with a broad understanding of the market situation in which a business operates and an appreciation of the types of opportunities and threats which might be faced.²⁰

Industries may be sub-divided into different market segments, for example, product lines, customer type, geographical location, and channels of distribution. Segmentation analysis brings forth the competitive position in terms of both advantages and disadvantages of different corporate segments. On the basis of this information, a company may decide to commence, reconfigure or exit one or more segments. The value chain approach for segmentation analysis involves a series of steps, including identifying segmentation variables and categories, constructing a segmentation matrix, analysing segment attractiveness, identifying key success factors for each segment, and analysing attractiveness of broad versus narrow segment scope.²¹

III-4- Proposed model: value chain analysis diagnosing the competitive advantage:

Figure 3: Value chain analysis contribution in competitive advantage's diagnosis:



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Source: Designed by researchers based on previous studies.

In fierce competitive world, a company needs continuation and expansion in markets. According to the figure above we notice the following:

Value chain analysis depends on three major methods assessing competitive advantage; these methods are considered as important and effective ways to diagnose advantages in each activity from the value chain model, plus this analysis should be applied on competitors' value chain for these three major reasons:

- Protect your own competitive advantage
- Imitate their competitive advantage and excel it.
- Develop and sustain your own competitive advantage.

The first method: Internal cost analysis: We can summarize this method in the following sides:

- Examine activities and analyze the interaction between them extracting the source of cost competitive advantage. This helps in maintaining this advantage and even renovating it.
- Evaluating opportunities among activities and processes to achieve cost advantage that the company may not had before.

The second method: Internal differentiation analysis:

This method of analysis allows examining activities and processes in the value chain of a company, the aim is to determine the sources of differentiation as competitive advantages among them, this method helps the company to develop, protect and sustain this kind of competitive advantage, or even creates new ones.

The third method: Vertical linkage analysis:

In this method the analysis is linked between the value chain in both the company and the industry surrounding it, the evaluation in this method is wider and more effective in diagnosing competitive advantage of the company considering the industry'.

Main condition : Knowing your core competencies, knowing threats and opportunities in the industry in every segment of the market is the only way value chain analysis methods can succeed, after all the competitive advantage diagnosis must be applied in total, considering every aspect affecting or could affect the company.

Conclusion:

To conclude, the use of value chain analysis allows companies to fulfill a full diagnosis of competitive advantage, the process of value chain analysis outlined in this paper is an effective aid for competitive advantage diagnosis to achieving sustainability and superiority in marketplace.

Although companies could possess cost advantage or differentiation advantage or both at the same time, a continuous and periodic diagnosis of competitive advantage internally and externally is required, taking into account opportunities and risks, and taking advantage of any resources or competencies available, thus not only sustain competitive advantage but also help developing or even inventing new advantages. The goal after all is to confront fierce competition and stay on top.

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