THE NECESSITY OF INFORMATION TECHNOLOGY PRESENCE IN THE VALUE CHAIN

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Abstract:
Any technology required by a company may have a significant impact on competition. A competing technology is important if they significantly affect the competitive advantage of the company or subsidiary. The basic tool for understanding the role of technology in value chain competitive advantage. Technological change is one of the main forces advancing competition. Information technology systems is ubiquitous in the value chain, as each activity generates and uses information. The presence of information technology systems in each business of the generic value chain is very important because of the multitude of activities designed to achieve a particular purpose. Office automation operations and transport are just two of the areas where key technologies are largely independent from the branch of activity. This is why technological development is relevant to a company, often taking place, also, in other industries. All these aspects of technology have implications for the role of technology in competitive advantage.

Key words: information, automation, computer, value chain

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1. Introduction
Technological change is among the most important things that can change the rules of competition being one of the main driving forces of competition. Yet, despite its importance, the relationship between technological change and competition - rent is generally misunderstood.

Technological change is not important in itself, but is important if affects competitive advantage and industry structure. Not every technological change is strategically beneficial, sometimes worse competitive position of the company and industry attractiveness.

Technological change tends to be seen as valuable in it self - any technological change that may initiate a firm is considered good. In general perception, to compete in the branches "high tech" is a ticket on the route to profitability, and other areas considered "low technology" are viewed with disdain. The recent success of foreign competition, largely based on technological innovation, has encouraged more companies to invest in technology, in some cases indiscriminately.

Many high-tech industries are much less profitable than some branches "low technology" because of their unfavorable.

Information technology is pervasive in the value chain of the company and not just the technology associated with the product. In fact, no one can say that there is a low technology industry, if we adopt this view larger. A branch is considered mature technology often leads to strategic disaster. Moreover, many important innovations for competitive advantage are prosaic things and do not imply any major scientific discovery. Innovation can have important strategic implications for companies with low technology, as well as for the high-tech.

All technologies embedded in snare value of the firm have a potential competitive impact.

Connections between technology and competition I will examine the relationship between technology and competitive advantage, resulting from the role of technology in the value chain and the resultant ability of the company to achieve lower cost and / or differentiation value through its activities and how technology can shape the industry structure.

Strategy regarding technology choice decisions should include important technologies to invest, when to follow and technological supremacy within them and how technology licensing. Then I show when and how a company can provide the path followed by technological change as the industry evolves activity, is a crucial question concerning technology strategy choice.

Finally, are summarized next steps related to information technology strategy formulation with in the company.

2. Information technology and economic branch structure
Technology is also an important determinant of the structure, branch, if the technology used in a business value becomes widespread. Technological changes that propagate have the potential to influence each of the five
competitive forces and improve or erode the attractiveness of the industry. Thus, even if the technology does not produce competitive advantage for any particular company may affect the profit potential of all firms. Conversely, technological changes that improve the competitive advantage of a company structure can deteriorate as you are imitated.

Potential effect of technological change on industry structure is reflected by the fact that a company can not determine strategy regarding technology without taking into account structural impacts.

2.1. Place information technology value chain

The value chain is the key tool for understanding the role of technology in competitive advantage. Any company that amount of work, is a collection of technologies. Technology is embedded in each activity value of a business and technological change may affect competition by the impact it actually has on any activity.

Each activity uses technology or other value to combine inputs purchased and human resources in order to achieve a product.

Any business requires a large number of technologies. Everything that makes a business requires a certain type of technology, even though it would seem that one or more technologies dominate the product or production process. The importance of a technology competition science does not depend on its value or importance in achieving distinctive physical product. Any technology that requires a firm can have a significant impact on competition. A competing technology is important if significantly affect the competitive advantage of the firm or branch structure.

Inherent technology interacts with other inputs supplied under technology to produce the performance of the work.

There are not only embedded technologies in primary activities, but also in support. In product development, computer-aided design technology is an example recently came into use, which began to replace traditional ways of developing new products. However, various other technologies determine fundamental performance support activities, including those that are not seen usually as based on technological base. Supply includes both procedures and technology for ordering and interaction with suppliers. Recent developments in information systems technology enable revolutionary purchase by changing control procedures and facilitating supplier. Human resource management research in the field of motivation and exploit technology for business training. Infrastructure firm requires a range of technologies, from office equipment and ending with analysis of legal research and strategic planning.

Information systems technology is particularly pervasive in the value chain, since every activity value generates and uses information embedded technologies - both the consumption and the capital assets.

Information systems used in planning, control, optimization, measurements and other activities designed to achieve a particular goal. Logistics inputs, for example, uses some type of system to control information handling, while deliveries to plan and manage stocks of raw materials. Similarly, it is necessary an information system in processing orders, managing relationships with suppliers and the timing of sales force activity.

Information systems technology plays an important role in the links between all activities as coordinating and optimizing the flow of information necessary links between activities. A recent rapid technological change and information system has a profound impact on competition and competitive advantages, given the pervasive role of information in the value chain.

Another technology with predominant presence in the value chain is the technology or administrative office as clerk duties and other office functions must be undertaken as part of many valuable assets. Although technology can be subsumed office information systems technology, I thought it separately, because the propensity to be overlooked. Changing how they can be met office functions is one of the most important types of technological trends that manifest today in many companies, even though they devote substantial resources too few.

Technologies of various value activities can be correlated, and this forms the major sources of links within the value chain. Product technology is technology related service or product, for example, while technology components of the product are related to the whole product technology. Therefore, a technological option in one link in the value chain may have implications for the links in the chain. Switching to ceramic engine parts, for example, eliminates the need for cutting processing and other manufacturing operations, in addition to other effects on value chain performance. Links with suppliers and channels also require, in many cases, relationships of interdependence between technologies used to perform work.

Technology firm is also evident in interdependent relationships with buyers Technologies Company. Points of contact between a company's value chain and chain her buyer, analyzed in the previous chapter, define areas of potential interdependent technology. Product technology influences firm product and process technology buyer and vice versa, for example, while order processing technology used by a firm is influenced by procurement methods used by the buyer.

Technology therefore is pervasive in an organization and depends partly so buyers channels and technology providers. As a result, technology development covers areas that go far beyond the traditional boundaries drawn for research and development, and inherently involve suppliers and buyers. Some of the technologies incorporated in the value chain are specific branch of activity, lesser or greater, but many of them are independent of the nature of the industry. Automate office operations and the transports are just two of the areas where key technologies are largely
independent branch of activity. That is why technological development relevant to a company often takes place in other industries. All these features of the technology have implications for the role of technology in competitive advantage.

2.2. Place information system technology in business value chain

Because technology is embedded in each activity value and is involved in creating links between activities can have a significant effect on both cost and differentiation. Technology will have an effect on cost or differentiation that affects the driving forces of cost or uniqueness of value activities. Technology influences the competitive advantage that can play a role in determining the relative cost position or differentiation. Technology which can be used in an activity value is often the result of other drivers, such as scale, timing and interdependencies. For example, the activity scale allows automatic assembly plants using high speed, while early initiative has allowed for the public electricity providers to acquire hydropower capacity between the sites were available.

In such cases, technology is not the source of competitive advantage, but rather a result of other advantages. However, the technology used in a business value is often in itself a driving force when political choice reflects a decision taken independently of other drivers. A firm may discover a better technology for executing an activity, compared with its competitors, thereby obtaining a gain competitive advantage.

Besides that affect cost or differentiation itself, technology has an effect on competitive advantage by changing or influencing other driving forces of cost or uniqueness. Technological development can increase or reduce economies of scale make possible interdependence where they could not be created before, and influence almost any of the other driving forces of cost or uniqueness. Thus, a company can use to change the technological development driving forces in ways that favor it, or may be the first and possibly the only one to exploit a particular driver.

As technology firm is often in the interdependence of technology company buyers, technological change made by the buyer can influence competitive advantage as well as technological change produced in-house. This is verified especially in differentiation strategies. For example, a retailer that once differentiated by performing duties pricing and inventory management for its buyer’s retailers could to lose that distinction if retailers choose to systems of registration and online registration point for sale. Similarly, changes in technology, providers can increase or reduce the competitive advantage of a company if they have an effect on the driving forces of cost or uniqueness of the firm's value chain.

3. Conclusions

The link between technological change and competitive advantage suggests a number of ways to check if technological change takes place in an appropriate direction. Technological change initiated by a firm sustainable competitive advantage will lead to the following conditions:

Technological change itself reduces cost or increases differentiation and technological advancement of the company is sustainable. A technological change increases the competitive advantage that leads to lower costs or differentiation and may be protected against imitation. Factors that determine the sustainability of a technological advance are defined below.

Changing technology a valuable asset, or changing product in ways that affect the value of an activity can influence the drivers of cost or uniqueness of activity. Therefore, even if technological change is imitated, it will lead to a competitive advantage for the firm if the driving forces push the cost to favor the company. For example, a new assembly process that is more sensitive to the effect of scale than the previous process will benefit a large market share firms that enter the first, although eventually become competitors to adopt the technology.

As initiator introduction of technological change translates into benefits first and innovative addition to the inherent technology introduced. Even if an innovation is imitated, as initiator introduction can lead to a variety of possible specific advantages first innovative in terms of cost or differentiations, which remain after the technological advance of the originator disappeared. Advantages and Disadvantages of innovative first defined a little further.

Technological change improves the structure of the industry. A technological change likely to improve the structure of the industry is appropriate even when it can be easily copied.

Technological changes that verification does not confirm these conditions will not improve the competitive position of a company, even if it could be a remarkable technological achievement.

Technological change will destroy the advantage com petition if, besides that does not meet the test, it also has the opposite effect intended by them, such as moving the driving forces of cost or uniqueness to its competitors. Also, could the company to wake up in a situation where technological change qualifies one checks, but others worse position by failing company.

Technological change is an important determinant of entry barriers. It can increase or decrease economies of scale in almost any activity. For example, flexible manufacturing systems often have the effect of reducing economies of scale. Technological change can and increase economies of scale in the function of technology development by accelerating the introduction of new products or by increasing the investment required for a new model. However, technological change is the foundation of learning curve. Learning curve, resulting from improvements to things such as organization, efficiency and working speed machines.

Technological change may lead to other absolute cost advantages such as low cost industrial design product.
can also modify the necessary capital to compete in a particular industry. For example, the transition from the continuous technological batches in production of starch, corn syrup, significantly increased capital requirements in a corn wet milling.

4. Bibliography


