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Approaches to Development of Innovation Culture as a Tool for Gaining Competitive Advantage

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ABSTRACT

Today, to survive in business, organizations are compelled to compete with other organizations. Therefore, they have no choice unless to be innovative. Innovation is the application of new ideas of creativity that can be new products, new services, or a new way of doing things. Without innovation, new ways of doing business cannot emerge at all, and most organizations will be forever caught up in old services and old ways. The continuous and inclusive innovation enhancement, is, in fact, a kind of systematic exploration, the aim of which is to find new ways and means to react to environmental changes and pressures. Since repeated reactions aren't effective in today's complex and changing environments. Therefore, companies should constantly search for new and novel ways of interaction in the environment, and, in turn, affect those interactions and changes. In developing a culture of innovation that can support an organization to implement and leverage the innovation process, good human resource management and knowledge sharing should be considered. First, we describe definitions of innovation, then innovation necessity, advantages, and barriers impeding it are examined. Finally, the innovation cycle, innovation process and strategies for creating and developing a culture of innovation will be examined.

Keywords: Competitive tools, Effectiveness, Improvement, Organization, Organizational change

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1. Introduction

In recent years, we have seen increased competition among businesses in many industries. Business researchers claim that an organization can achieve a competitive advantage only by implementing proper business innovation.

As a result of rapid environmental changes, organizations have had to deal with a more complex environment and businesses have had to adapt and evolve in order to survive.

It has been a topic of many studies, especially in the last several decades, that human resource management plays an important role in innovation in organizations.

The competitive advantage of any organization rests in its people, as many specialists in the field emphasize, as the content and quality of human resource management determine the success, performance, and competitiveness of the organization. In every field, regardless of how they operate, people are a shared and vital resource, one that ensures an organization's survival, development, and competitive success (Maier *et al.*, 2018).

This has made the concept of innovation one of the most important management issues and is no longer a matter of choice.

2. Literature Review

2.1. Innovation

2.1.1. Innovation Definition

Innovation refers to the application of new ideas resulting from creativity and believes that innovation can be a new product, a new service or a new way of doing something, while creativity is the ability and power to create a new idea or idea (Alvani, 2004).

Innovation involves developing new ideas, implementing them into products, services, or processes, and commercializing them (Gruenhagen, Cox and Parker, 2022).

Innovation is a process of adding value to an organization's management, production, or service chain. Innovation contributes to profitability, safety, social acceptance, and/or environmental compliance through the use of new techniques, ideas, and/or models. Innovation is different from “improvement” that betters an existing procedure. Innovation is a new way of performing, referring to radical shifts in the way things are done, while improvement describes the gradual enhancement of the current process (Ganzer, Chais and Olea, 2017).

Innovation is a process that is designed and managed to create value and appears in the form of new services, products, processes, technologies and business systems.

Whereas creative endeavors must lead to creative results; Innovation, then, is objectified creativity. The above definition is the simplest definition of the innovation process; But innovation, like the word creativity, has many different definitions that depend on the perspective from which it is defined. In general, the definition of innovation includes one of the following:

Innovation in inputs: Innovation in consumables used, innovation in resources and methods of providing them.

Innovation in process: Innovation in technological processes, innovation in skills and executive procedures.

Innovation in outputs: Innovation in products, services and distribution of products and services (Dewett, 2004).

Studies of innovation management have often focused their investigations on two domains: technologies and markets. Especially when it comes to radical technological change, technological innovation has captured the most attention. Indeed, in the past decades a rich stream of studies has investigated the antecedents of technological developments. The focus of later research has shifted to using existing or new technologies/products to penetrate new markets. The goal of this innovation is to introduce a new meaningful experience for the user. It involves changing the reason for using “why” rather than the "what" and "how" (Verganti and Öberg, 2013).

2.1.2. Innovation Necessity

Without the innovation of new products, new services and new ways of doing business can not emerge at all, and most organizations will be forever caught up in old services and old ways. Other reasons for the approach to innovation include the following:

Innovation as Paradigm change: Innovation means bring a change the way business operates across the growing global economy. This new economy is characterized and differentiated in terms of promoting innovation rate and volume, shortening product and

technology life cycle, commercialization of new technologies, globalizing not only large businesses but also small businesses, emphasizing on strategic partnership and continuity of strategic of development plans, and, finally, difficulty in accessing vital technologies.

Innovations as the engine of economic growth: the rapid and efficient spread of innovation across the economy is vital for productivity and economic growth. Innovation is created by forces of competition and imitation, such that, in many cases, its effect on the economy is greater than its purchase in the first instant.

Innovation as a rule: Like any living organism, Organizations should be learning organisms which constantly change and adapt to live in the changing business environment (Kotelnikov, 2007).

2.1.3. Innovation Advantages

Innovation is one of the key factors of organizations survival in today's highly competitive environment. Through these recent years, many organizations have made great efforts to encourage employees to innovate. Companies incapable of transforming themselves or their industry in best situation "effectiveness destroyers". They are dying, soulless, and disappointed. They are the other foods for imaginative companies that can redesign skills and assets of these companies (Hamel, 2001).

Moving from the national market to the global market has made intensive competition especially in industrial sector. Such that national markets, where were taken by monopolies, are exposed to global competition. The global industry is fragmented because of globalization; it means a large number of companies are competing in one global industry such as automobile. This competition has reduced industry's profit margin, and has made maximizing profits, quality, flexibility regarding customers, and innovation the most important issues (Hill and Jones, 2007).

According to Figure 1, for Hill and Jones, four factors create competitive advantage: efficiency, quality, customer responsiveness and innovation. These four factors represent the four common methods of cost reduction and differentiation that can be applied by any organization regardless of industry in which it operates or the type of products or services it offers.

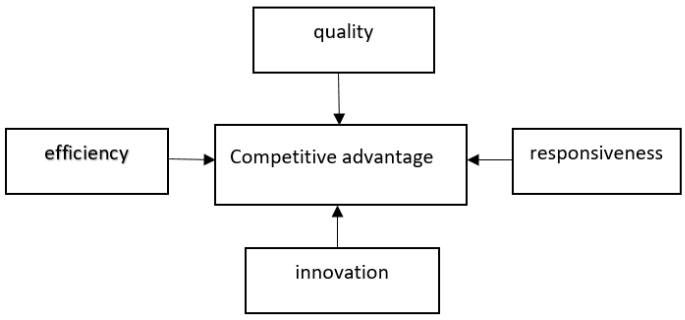

Figure 1. Factors affecting competitive advantage
(Hill and Jones, 2007)

Innovation is perhaps the most important source of competitive advantage. In the long run, one can consider competition innovation-driven process. While not all innovations aren't successful, few successful innovations are key sources of competitive advantage. Because successful innovation provides the organization with a unique feature that its competitors lack. Uniqueness makes the organization capable of differentiating itself from other

competitors and to claim premium for its product. Such an innovation allows the organization to reduce cost of its unique product unit to much lower than its competitors (Figure 2).

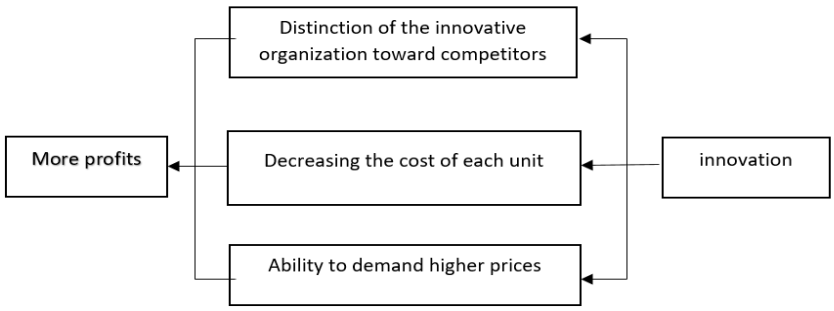

Figure 2. Positive effects of Innovation
(Hill and Jones, 2007)

Innovation provides the community with At least three benefits: economic growth boost, productivity enhancement and creating new technologies, goods and services.

2.1.4. Innovation Barriers

The barriers to innovation include:

Limited communication paths between personnel and the chief manager: if manager's is accessible only through a few individuals, misconceptions will intensify and the risk-taking will decrease.

Difference intolerance: If organization authorities don't tolerate opposing tastes, coherence and unity will vanish and a boring and dull atmosphere will dominate. In this situation, any employee criticizing the current situation, will be called "sabotage".

Beneficiaries in keeping current situation: If some people benefit by maintaining the status quo, innovation arena will be limited. Individuals and interest groups prefer individual and group interests to the interests of organization and insist on protecting their privacy against outsiders.

Emphasizing short-term horizons: If the organization's authorities take a limited vision, they will focus on short-term goals and will not welcome new ideas and initiatives that will work in the long run (Rezaeian, 2001).

Four types of barriers have been identified by researchers - knowledge, cost, market, and regulation - from which useful conclusions can be drawn: First, to determine the importance of innovation barriers for firms, it is necessary to distinguish between those that engage in innovation activities and those who do not (D'Este *et al.*, 2012). Second, all firms, regardless of whether they are innovating, report costs and financial constraints as the most important barriers (Coad, Pellegrino and Savona, 2016). Third, firms that don't innovate are more concerned about obstacles related to knowledge and market than those that innovate (D'Este *et al.*, 2012). Fourth, these results are moderated by other firm characteristics. For example, companies with higher levels of human capital tend to be better equipped to overcome knowledge and market barriers (D'Este, Rentocchini and Vega-Jurado, 2014). Technology-advancing firms report knowledge barriers related to skills, technological knowledge, market knowledge, and partner knowledge as important issues (Hölzl and Janger, 2014).

2.1.5. Innovation Cycle

Understanding the nature of basic research, invention, and product innovation is imperative. All three steps can be considered discrete, though they are often considered that way, and each has quite different outcomes and purposes. Although other terms are used for the steps to innovation and there are disagreements on how many steps are necessary, the following steps are defined as follows:

Basic Research: The most basic level of research. It is best expressed as a search for new knowledge or truth. Here, people are mainly interested in figuring out how things work, with little consideration for commercial applications. The publication is often a primary outcome.

Invention: It is the process of developing new knowledge or combining existing knowledge in order to create new products and processes. Inventions are often the result of novel applications of existing knowledge (Grant, 2002). This is a bridging or intermediate step, which is also comparable to applied research. A primary outcome of this stage is the development of some useful tool or process.

Innovation: Commercializing an invention by producing and marketing a new product or service or by developing a new manufacturing process. Innovation can result from a single invention or from a combination of several inventions (Grant, 2002). This concept also encompasses the business model used to commercialize the product. Without a successful business model, there can only be invention, not innovation (Hamel, 2001).

2.1.6. Innovation Process

The innovation process is nothing more than a good idea. The origin of the idea is important and the role of creative thought is critical especially for its development. But ideas come from only thinking differ greatly from ideas resulted from thought development, research, experimentation and effort.

In essence, from the management perspective, innovation conception is a process begins by imagining a product or a service and results in the commercialization of the new product or service. Following diagram illustrates the different stages of this proces. (Figure 3).

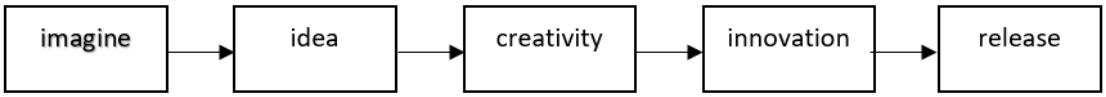

Figure 3. Innovation process
(Aghaei, 2006)

Through this process, first of all the person is allowed to free his imagination, which according to Einstein, is more important than knowledge, such that he/she can explore any direction, and then he/she can turn the idea into a scientific, useful and adapted idea (creativity). Then these scientific ideas are turn into new goods, services, etc. Finally, the process of innovation ends with the distribution of commercial goods and services.

2.1.7. Approaches to Development and Deployment of Innovation Culture

Entrepreneurs who want their organizations to be high-performing need to be more innovative, for instance, in the development of human resources (Onkelinx, Manolova and Edelman, 2016) and knowledge sharing (Magnier-Watanabe and Senoo, 2009). To generate profits and improve performance and productivity in a fast-moving and dynamic business environment (Hanifah *et al.*, 2019), business operations must be characterized by innovation. Increasing productivity and performance can be achieved through the application of ideas and

new discoveries to the development of products or new services, management strategies, procedures, work methods, and technology (Chahal and Bakshi, 2015). Therefore, innovation plays an important role in adapting to a rapidly changing business environment (Aboramadan *et al.*, 2019), since it can help improve organizational performance and maintain its competitive advantage. However, in complex and ever-changing business environments, speed and quality of innovation are more important. According to Ghasemzadeh et al.(2019) innovation is one of the leading strategies and a key factor to determining organizational sustainability.

Many researchers have considered different contexts and conditions for the development and deployment of creativity and innovation. However, main creativity development and deployment are:

1. Strategy and Outlook

The concept of innovation strategy is conceptualized as levers which managers pursue to innovate (Klingebiel and Joseph, 2017), and affects on firm performance (Erzurumlu, 2017; Tidd and Bessant, 2018).

- Developing and declaring a clear vision and describing a strategic direction; the more the organization strategy is future-oriented, the more the organization strategy is innovative.

2. Organizational Intelligence

Business intelligence (BI), which is an application or analysis of operational and analytical databases, has been proposed as a tool, product, or system for making accurate and intelligent business decisions. As a result of it, innovative business activities get facilitated and decisions are made (Moscoso-Zea *et al.*, 2019).

An intelligent business system's efficiency and effectiveness play a crucial role in the success and competitive advantage of a company (Popovič, Puklavec and Oliveira, 2019). Based on their scope and long-term benefits, these systems are evaluated from multiple perspectives (Combita Niño, Cómbita Niño and Morales Ortega, 2020).

- Production and operation based on relevant and appropriate information to identify new ways of exploration
- Reducing and Eliminating inherent uncertainty, ambiguity and complexity of innovation
- Recognizing and Identifying competitors and markets.

3. Organizational system and structures

- Establishing a special reward system which encourages creative behaviors: The organization needs to develop an incentive reward system that encourages innovation. Introducing stimulus packages to reward performance can help increase employee motivation and engagement in innovation.
- The capability to support a flexible innovation process (Lee, 2009).

4. Culture and environment

Organisational culture consists of values and beliefs that dictate employee behavior. Some argue that organisational culture is more powerful than the organisation’s strategy and structure (Zheng, Yang and McLean, 2010). Culture plays a major role in determining employees' behavior beyond formal control systems, procedures, and authority (Javanmardi Kashan, Wiewiora and Mohannak, 2021). Therefore, organisational culture can be a powerful means to achieve organizational goals. It is crucial for both theory and practice to develop

knowledge about the organisational culture that encourages innovation, since it provides a critical prerequisite for long-term organizational success (Tellis et al., 2009).

- Empowering employees; employing the best researchers, specialists and inventors: Employee qualification is a means of reaching innovation because it is indispensable for further implementation of innovation. On the other hand, qualification is the result of innovation when technological and organizational changes take place in the qualification of employees (Perdomo-Ortiz, González-Benito and Galende, 2009).
- Giving employees power and authority: Creating an organizational culture that recognizes innovation as the responsibility of each employee and provides them with opportunities to think and present their ideas. Employees of any company are the greatest "wealth" because they bring skills, knowledge and experience to the company that affects business performance and business goals. In today's market environment, an employee's performance is being tested; they must keep up to date with the latest technological breakthroughs, customer demand, new product or process standards, management techniques, and government, financial, health and safety rules, etc. On the other hand, the requirements of the client and the market are manifested by constant change (Alvani, 2004).
- Knowledge sharing: In companies, knowledge information is used for learning people as well as for making management decisions. Through the use of business intelligence systems, knowledge information is incorporated and turned into useful information, improving performance appraisal between managers at all levels of the organization, leading to a competitive advantage (Wang *et al.*, 2022).
  Knowledge sharing is one of the management dimensions required to create a competitive advantage (Magnier-Watanabe and Senoo, 2009). This is the primary key of organizational learning, innovation and functions as a crucial driver in creating values for business excellence and performance (Aboramadan *et al.*, 2019). By sharing knowledge across individuals, new experiences are created (Ahmad, 2018). This leads to more creativity, the elimination of redundancy, and innovation acceleration.
- Communication: Developing an open communication system that facilitates collaboration, communication, and teamwork. A critical element of innovation management is communication, which is used to expand participation and interdependence among the structures involved, both in project teams and at the organization level, in leadership; communication is generated through new product conceptualization, process development, and dissemination of information, among other things (Maier *et al.*, 2018).

5. Technology Management

- Linking technology strategies to business strategies
- Effective forecasting and, in turn, recognizing the chance of technology development, products and markets of future
- Leadership: By focusing on innovation management and identifying behaviors that encourage innovation, including risk-taking, innovation support, and rewarding initiatives. In order for organizations to perform well in innovation, leadership plays a key role. Leading the innovation process requires the leader to create a culture in which innovation and creativity are ingrained in everyone's work (Lee, 2009).

3. Conclusion

Innovation is necessary for the organization's survival. The development of a culture conducive to innovation is carried out in parallel with the implementation of appropriate open-minded structures and new innovation management tools.

In general, it can be said that innovation depends on people, on their ability to generate knowledge and ideas and to apply them to their workplace and society, and the managers and personnel should be aware of innovation in order to play an effective role in achieving the goals and organizational progress. Therefore, to compete in change are, organizational should pay special attention to organizational culture, organizational structure, management, communication, and employees training. Leaders have to be a part of that process. If leaders are excluded, meanings become very hard to communicate.

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