



Studying Models of Innovation in Small and Medium Enterprises

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Abstract

Innovation is one of the basic tools for growth strategy to enter new markets that has increased existing market share and will prepare company to face the competitive position. In new world, companies in accordance with the importance attached to innovation, they are able to gain a competitive advantage. In today's world by decreasing life of product and rapid saturation of demand should be considered special importance to innovation because life cycle and product life can become long by means of innovation and remain in competition. Thus, present paper seeks to study some of the popular models of innovation in small and medium enterprises.

Keywords: Innovation, Small and Medium Enterprises, Innovation Models

Introduction

Change, transformation, and the dynamics of environment are features of globalization and era of information and communication. Countries of the world especially developing countries, to increase productivity and the survival of their organizations need to take advantage of timely, appropriate opportunities ahead. This requires putting creativity and innovation programs in the forefront of organizational activities (Fathizadeh & et al, 2011). One of the requirements for successful performance of organizations and companies in today's competitive world is to have innovation and create a competitive advantage (Ramzanpour Nargesi & et al, 2014). Businesses active in present dynamic markets are faced constant challenges to achieve success (Gilaninia & et al, 2013a). In such circumstances, innovation is a major key of success (Dormio and Bigliardi, 2012).

In New World, companies in accordance with the importance attached to innovation, they are able to gain a competitive advantage (Gilaninia & et al, 2013b; Moghassemi & Gilaninia, 2017). In today's world by decreasing product life and rapid saturation of demand should be considered special importance to innovation because life cycle and product life can become long by means of innovation and remain in competition (Noepasand Asil & et al, 2016). To survival and development in the modern era and even maintain the status quo should also continue flow of innovation because is prevented recession and its destruction (Nabipour Afroozi & Darvish Motavali, 2013). In this article, is presented some models of innovation through a review of literature.

The Definition of Innovation

Innovation is one of the basic tools for growth strategy to enter new markets that has increased existing market share and will prepare company to face the competitive position (Gunday & et al, 2011). Innovation is a skill that is associated with many other contributions. Innovation is called to major changes in the field of technological advances or provides the latest management concepts or production methods (Najafi & Abbasi Monazah, 2015). Innovation is practical and functional thoughts and new ideas arising from creativity (Gilaninia & et al, 2011; Gilaninia & et al, 2013c). In other words, the information is obtained in creativity and in innovation, that information can be supplied in various forms (Fathizadeh & et al, 2011). Innovation is a significant change to improve organizational processes and services and create new value for stakeholders of organization and to achieve new performance dimension focuses on organization's leadership (Tabarsa & et al, 2012; Jahanian & Hadadi, 2015). Innovation in an organization is meant to

create and adopt innovative ideas and behaviors (Mohammadi & Amiri, 2013). Intensifying innovation will lead to rapid changes in technology and increasing prosperity and economic growth (Herrera & et al, 2010).

Types of Innovation

There are four main types of innovation:

Product innovation: it will lead to new products, service, or enhancing products or services.

Innovation processes: it will lead to improved processes in the organization. This innovation has emphasized on improving the effectiveness and efficiency.

Marketing innovation: it is related to the functions of marketing, promotion, pricing and product distribution and other functions, with the exception of product development (Shahhosseini & Kavooosi, 2009).

Organizational innovation: it is changes in marketing, sales, administrative procedures, management and human resource policies (Mollahosseini and Fathi, 2009).

Joseph Schumpeter in his research about innovation has mentioned four innovations that include:

1. The introduction of new products by modifying existing product quality; 2. Create a new market; 3. New sources of supply of raw materials and other inputs; 4. Change organizing the industry (Morshedloo et al., 2015).

Levels of Innovation

Another way to understand innovation is related to the different levels of it that reflecting varying degrees of impact of innovation. In most common level, innovation are raised a range of incremental innovation, radical innovation and a systematic innovation or delivery. Concepts of innovation in terms of level and the effect is as follows (Price, 2008):

- Incremental innovation: This innovation represents micro and small changes in the processes and services available. (Gilaninia, ,2017) These innovations in nature are considered incremental, and may include relative changes in the design of organizational structure and relationships within organization and outside the organization.

- Radical innovation: This type of innovation is happening less. In this innovation, new products and services or fundamental ways of doing things design and develop. In radical innovations is caused major improvements in organizational performance to meet the expectations of service users.

- Transformation or systematic innovation: this innovation rarely happens. In this innovation, is considered create new structures, new organizing, the development of the sectors, and significant changes in organizational communication. Typically, broad and fundamental impact of it requires fundamental changes in the alignment of organizational, cultural and social (Seifi Divkaleai & Atf, 2012)

Models of Innovation

Push-Science Model

During the years 1950-1960 the innovation process was defined based on a linear model as follows. In this simple model assumes that is started innovation or new scientific research and in the later stages will reached to product development, manufacturing and marketing and finally product, service or new process sold successfully (Mardi, 2015).



Figure 1: Push-Science Model

Demand Pull Model

In this model innovation were the result of market needs and demand and market demand directly leads to create new need for the development of enterprise technology. In this model, most innovation is the result of work units that are

connected directly with the customer because these units know to better customer needs and wants and better recognize the investment (Popper & Wanger, 2002)

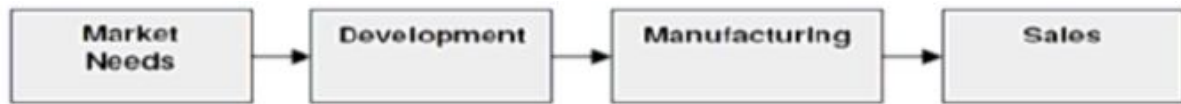


Figure 2: Demand Pull Model

Close Innovation

Close innovation is the view that knows success depends on innovation to apply control over the process of innovation. Based on this view, companies must create their own special ideas, then develop them, build, take to market, distribute, finance and provide after-sales service (Safdari Ranjbar & et al, 2014)

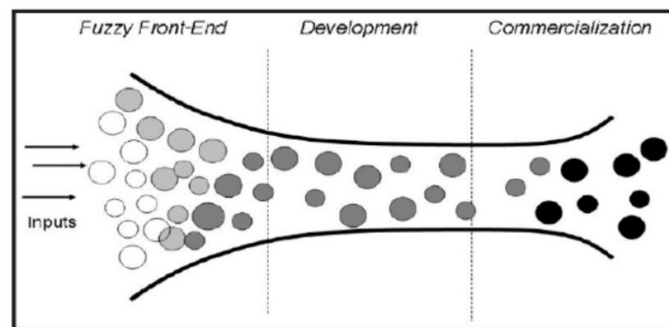


Figure 3: Model of Close Innovation

Open Innovation

According to Greenwood effects of opening innovation space in the enterprise level is as follows: Cooperation networks are created and developed naturally; organizational boundaries to gain external knowledge is developed continuously; absorption critical capacity is preserved for organizational learning and knowledge exchange and increase. the social capital formed the basis of partners trust to the organization is increasing as a constantly (Greenwood, 2010). In open model companies are active increasingly in the acquisition of input sources of competitors, universities and other organizations (Parhizgar & et al, 2013).

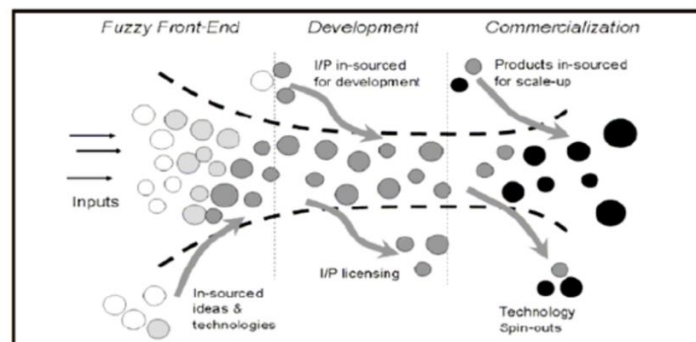


Figure 4: model of Open Innovation

Model of Stage Gate Process

This model is divided activity into discrete units linear. In this method can build a portfolio of innovation projects in the linear path that by improving the way is adapted with existing investments, resources and time entry demands to market.



Figure 5: Model of Stage Gate Process

Third Generation Coupling Model of Innovation

Coupling model is interaction between the various departments and feedback cycle among them was introduced in late 1970. This model is actually a combination of first and second-generation models that innovation is interpreted with combines of Push - Pull and Pull - Push. The aim of this model is to show the sequence of operations in innovation and feedback between research and development and market (Mardi, 2015).

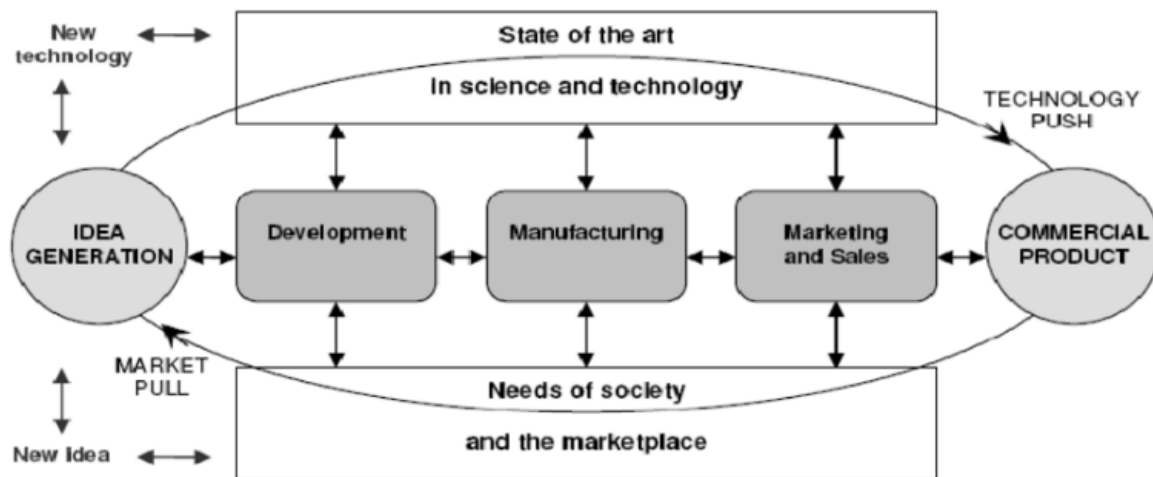


Figure 6: Third Generation Coupling Model of Innovation

Discussion and Conclusion

Innovation as an important issue for individuals, institutions, and overall, for all communities because of its relationship with the flexibility and production is basic and very important. With intense global competition, innovation has become necessary component of the company's strategy because through it companies use manufacturing processes of productive and fruitful, do better in the market, acquire reputation and positive image in the perceptions of customers and thereby gain competitive advantage reliable. Companies not only have looking to explore new opportunities to achieve market success and sustainability in competition advantage but also should focus on their product development and market.

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