

## Defining the Concept of Innovation and Firm Innovativeness: A Critical Analysis from Resource-Based View Perspective

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### Abstract

The primary objective of this paper is to contribute to the existing literatures by comprehensively reviewing the definitions, concept, as well as the importance of innovative and innovativeness in the business world. This review covers various definitions of innovation and innovativeness, multi dimensions of innovation and how this innovation acts to generate a good firm performance and competitive advantage, relying strongly on the famous Resource-Based View theory. Since the term 'innovation' itself is quite difficult to interpret, observe or evaluate, as argued by many scholars, this review attempts to provide discussion and enhance understanding on these concepts especially in the firm's context. This review could shed some dynamic ideas for future researchers to further identify, conceptualize and understand the underlying theories and perspectives which strongly influence the previous, current and future concept of innovation.

**Keywords:** innovative, firm innovativeness, firm performance, dimensions, Resource-Based View

### 1. Introduction

Historically, an enterprise or a firm started their business with basic features. Day by day, many other enterprises or firms started their business with basic features too. Thus, this phenomenon is a disadvantage among them due to business competition. From here, they try to be different from each other by offering 'special offers' that others do not offer, in order to attract customers to run quickly to their firms. The idea of introducing various 'special offers' is called as being innovative. By having this innovativeness, the firms can gain competitive advantage among competitors.

Take, for example, the case of Compaq, a successful well-known computer company, which produces many computer products since the inception with IBM. However, at a certain extent, Compaq found Dell, which is also a great computer company, has hurt them by introducing comparable products with much lower prices. This so called competition caused Compaq to experience loss and has to cut off 14% of the employees. Therefore, Compaq has been innovatively taking actions by introducing extended product line, developing a new process for designing and building computers as well as offering lower prices (Slater, 1996).

Another later example that showed the evolution of innovation is about Kraft Foods. Kraft Foods was awarded a 2009 Supply Chain Innovation Award for its innovation at the distribution centers. Kraft had recognized a passive radio frequency identification (RFID) technology as the best approach to provide real-time visibility, along with more efficiently spot and track trailers on its premises. In order to gain advantages while reducing operation cost, they installed passive tags, and trucks were equipped with GPS-enabled RFID readers instead of putting RFID devices with battery powered on the company's trailers. Therefore, this Kraft's innovative approach has resulted in flexibility and cost effectiveness. An extra 'gift' for Kraft by applying this new innovation is that the Kraft's management can monitor key performance indicators at the yard operations. Kraft and its carriers now also do not waste time dealing with faxes and phone calls (Daugherty, Chen, & Ferrin, 2011).

However, the innovation does not only exist in this later decade, but it had started as early as in 1776 where Adam Smith linked in detail the connections between manufactures, market and transportation inefficiencies in

The Wealth of Nations (Donovan, 2004). With the continuation of Adam Smith, thus steam engine, RFID, electronic data interchange (EDI), containerization, cross-docking and many other great innovations in logistics field are innovated (Grawe, 2009). Thereby, all the innovations in logistics technologies afterwards has helped the logistics industry very well. It is considered as a key variable and differentiates them among competitors (Lin, 2007; Sauvage, 2003). Furthermore, all of these innovations have been proven as a catalyst for operational efficiency and effectiveness as supported by literature since so many years ago. As noted by Lin (2007), the most important tool for enterprises to keep being competitive is by adopting these technological innovations (Kimberly & Evanisko, 1981; Damanpour & Evan, 1984).

Initially, the paper begins with definitions of innovation and innovativeness. This is followed by a review of the dimensions that built the innovation itself. The section also summarizes a list of constructs that are widely used to measure innovation based on previous literature. The next section explains the importance of innovativeness to the firms in regard to the Resource-Based View (RBV) Theory. Lastly, it is preceded by discussions of how innovativeness can actually lead to the superior performance of a firm by taking the dynamic environmental challenges as a motivation.

## 2. Methodology

This paper is a review of literature on innovative and innovativeness, based on RBV perspective. Therefore, in order to come out with this review, a number of innovative and innovativeness journals ranging from 1978 to 2013 had been analyzed in the light of innovation perspective. This paper zooms into the innovation and innovativeness of general firm, regardless of the specific industry, by taking several successful and well-known companies as examples. These companies include Compaq, IBM, Kraft Food and P&G. The innovation by an individual like Adam Smith to improve logistics systems was also taken into consideration. This is because they had proved their sustainability in the international market despite the dynamic changing of global economic pattern. Additionally, this review also focuses on dimensions of innovation that commonly used by other studies in various fields and industries. These dimensions seemed very important to measure the innovation subjectively applied by the firms. Last but not least, this review observes the direction of innovation to where it lead the firms. All the findings of this review are documented in the following sections.

## 3. The Definitions of Innovation and Innovativeness

What is innovation? Usually, the word innovation is often being confused with the word invention. According to C. Lin (2006), the word innovation is originated from Latin word, *innovare* which means “to make something new”. Back in 1985, Drucker (1985) had defined innovation as the entrepreneurs’ specific tool to exploit change for a diverse business or service. He added, this innovation can be presented as a discipline which can be learned and practiced. In other words, innovation is also said as “an idea, practice, or object that is perceived as new by an individual or other unit of adoption” (Daugherty et al., 2011; Grawe, 2009; Rogers, 1995). Meanwhile, Tidd, Bessant, Pavitt, and Wiley (1998) defined innovation as a process of transforming an opportunity into fresh ideas and being widely used in practice. Quite similar to Bentz (1997) who assumed that innovation is to bring out a new or enhanced process, service or products for the marketing. Afuah (1998) suggested innovation is the “use of new technical and administrative knowledge to offer a new product or service to customers”. Thus, many authors concluded that innovation is “any practices that are new to organizations, including equipments, products, services, processes, policies and projects” (Damanpour, 1991; Kimberly & Evanisko, 1981; Lin, 2007). Khazanchi, Lewis, and Boyer (2007) also extended the conclusion where they said that innovation is one of major relevance for companies, as it can be the source of additional revenues from new products or services, can help to save costs or improve the quality of existing processes.

However, in order to be innovative, the management team or any responsible individuals need to have innovativeness. What is innovativeness? According to Press (2014), innovativeness is a noun of the word innovative. But in the case of research, Feaster (1968) claimed that innovativeness as a positive attitude toward changes and an awareness towards the need to innovate. Meanwhile, Wang and Ahmed (2004) defined innovativeness as “an organizations’ overall innovative capability of introducing new products to the market, or opening up new markets, through combining strategic orientation with innovative behavior and process”. On the other side of the coin, innovativeness relates to the capacity of the firm to mesh together in innovation and managers use this innovativeness to solve business problems and challenges, thus resulting in providing survival and success pace for the firm, either for current or future (Burns & Stalker, 1961; Hult, Hurlley, & Knight, 2004; Hurlley & Hult, 1998; Porter, 1990; Schumpeter, 1934). Hult et al. (2004) later added that innovativeness seemed to be useful in helping firms to compete with the competitors with those new or enhanced products and verify product lines, yet expanding the range of firm’s activities generally. Therefore, then comes firm’s innovativeness

which refers to firms' "openness to new ideas as an aspect of a firm's culture" (Hurley & Hult, 1998), and the willingness of firms to adopt new ideas (Menguc & Auh, 2006; Woodside, 2005) that can be developed and launched as new products (Calantone, Cavusgil, & Zhao, 2002; Hurley & Hult, 1998; Tsai & Yang, 2013). In other words, it reflects the cultural values and beliefs of the firms which inspire their employees to be innovative (Hult & Ketchen, 2001).

Hence, through the literature, it can be concluded that innovativeness is a key attitude in any management teams and any firms for them to be innovative, thus coming out with new ideas for the competitive advantage and durability of their firms. The last section in this paper will discuss the role of innovation and innovativeness in a firm for a route to success.

### 3. The Multidimensions of Innovation

Regardless of the various definitions used to define innovation, scholars widely agree that innovation is actually coming in many forms (Cooper, 1998; Gopalakrishnan & Damanpour, 1992; Utterback, 1996). Cooper (1998) proposed that innovation occurs in multidimensional concept since he found that previous works about adoption of innovation also have revealed numerous dimensions of innovation. Therefore, innovation can be divided into two; technological innovation and managerial or administrative innovation, where these different types of innovation have given wide changes in any organizations of the firms (Fariborz Damanpour, 1987; Tuominen & Hyvönen, 2004; Yang, 2012). Pelz, Munson, and Jenstrom (1978) has earlier divided innovation into technological embedded and content embedded. Technological embedded is likely hardware or any innovated products while content embedded refers to the party that receives the technological innovation embedded such as management teams of any firms or any personnel who carry the responsibility of handling the technology. Cooper (1998) on the other hand noticed that innovation can be divided into three dimensions such as administration or technological innovation, radical or incremental innovation and product or process innovation (Utterback, 1996). The two famous dimensions of innovation; technological and administrative as mentioned above, have been given great attention by many scholars in their researches (Yang, 2012).

The differentiation between technological and administrative innovation involves the closeness of the change in the organization of the firms' core operation. Technological innovation associates with the "adoption of an idea that directly influences the basic output processes", while administrative innovations involve changes in relation with resource allocation, policies and other related elements associated with the organizations' social structure (Cooper, 1998; Draft, 1978). The ideas have been agreed by Yang (2012) who proposed that technological innovation covers new technologies, new product and new services while new policies, organizational forms and new procedures are considered as managerial or administrative innovation. Moreover, managerial or administrative innovation encourages expansion and execution of new ideas and processes, as well as rewarding staffs' creativity. There are several ways which managers may implement initially in order to present their commitment to the innovativeness development. But somehow, the adoption of organizational or administrative innovation is influenced by some factors including organization's culture, structure and climate (Kimberly & Evanisko, 1981; Lin, 2006; Panayides, 2006). Additionally, product innovation reflects changes in the end product or service offered by the organization, while process innovation represents changes in the way firms produce end products or services (Cooper, 1998; Utterback, 1996).

Table 1 summarizes the dimensions and constructs of innovation which are mostly used by many studies in various fields. Therefore, it has been proven that the constructs below can be adapted in many studies in order to measure the degree of firms' innovativeness. This is because the combination of both technological and administrative innovation could give a holistic view to what extent the firm could innovate thus indirectly shows its performance. This has been supported by number of scholars who confirmed that a firm needs to deploy innovative approaches to lead for a superior firm performance (Busse & Wallenburg, 2011; Calantone et al., 2002; Tsai & Yang, 2013; Yang, 2012). In summary, a firm's innovativeness generates the firm to develop innovations and novelty-approach to solve problem hence enhancing the firm's performance and competitiveness (Tsai & Yang, 2013).

Table 1. Dimensions and constructs of innovation as mostly mentioned in literatures

	1. New technologies
<i>1. Technological Innovation</i>	2. New products
	3. New services
<i>Innovation</i>	1. New policies
	2. New procedures
<i>2. Administrative/ Managerial Innovation</i>	3. Organizational forms
	4. Encourage expansions
	5. Reward staff's creativity
	6. Exploring best method to achieve corporate goals

Source: Lin, C. (2006); Yang (2012); Yang, Marlow, and Lu (2009).

#### 4. Underlying Theories

Through the viewpoint of Wernerfelt (1984), the essence of Resource-Based View (RBV) theory is that firms could gain and sustain competitive advantages by constructing and employing valuable resources and capabilities. The RBV also proposed that core capabilities might be identified from capabilities and resources of the firms; where in the RBV, resources and capabilities are usually known as the fundamental structures of the theory (Jay Barney, 1991). Aligned with Barney, Grant (1991) agreed that both resources and capabilities are used as main inputs for the organizational process. Accordingly, RBV theory of the firms suggested that firm innovativeness is a “socially complex and imperfectly imitable resource that generates competitive advantage and better performance” (Jay Barney, 1986; Menguc & Auh, 2006).

Since the RBV theory highlights firm innovativeness as a resource (Jay Barney, 1991), the RBV literature proposed that a firm should leverage its variant resources to satisfy customer needs in order to gain a continuous competitive advantage (Peteraf, 1993; Peteraf & Barney, 2003; Tsai & Yang, 2013). This is why firms adopt the innovation; where it is intended to devote to the effectiveness of firm performance, following the RBV theory generally (Damanpour, 1991; Hult et al., 2004). However, in any case, the firm must alter its resources based on the market changes to sustain its competitive advantage from time to time (Barney, Wright, & Kitchen, 2001; Barney, 2011). These RBV perspectives nonetheless suggest that innovativeness of a firm somehow may be affected by certain environmental situations (Tsai & Yang, 2013).

#### 5. Innovative Firm to Gain Competitive Advantage

Innovation is very important in business, either for large firms or Small and Medium Enterprises (SME). For large firms, new innovative business development and the ‘training/ educating’ of their organizations on innovation is significant for their firms’ strategic competency (Vanhaverbeke & Peeters, 2005). This may lead to further business discussion (Alfirevic, Krneta, & Pavicic, 2011). Likewise, innovation is vital for SME since it is a factor for them to be competitive in existing market, especially for new start-up businesses (Alfirevic et al., 2011). In any business environment, both large firms or SMEs are focusing on creating new quality products or processes (Herzog, 2011) and not to miss is the innovation in organizational process (Utterback, 1996). Serial innovation thus is important in order to gain success in making changes over time continuously. In an organization, strategic innovations (transformational changes) are needed to obtain competitive advantage, and sustainable competitive advantage is a long-term benefits for the organization (Davey & Sanders, 2012; Hamel, 2006).

Proctor and Gamble (P&G) is a good evidence for sustaining competitive advantages, as a result of its continuous strategic innovation. P&G is one of the biggest multinational manufacturers which produces products ranges including personal care, household cleaning, laundry detergents, prescriptions drugs and disposable nappies (P&G, 2014). P&G has uncountable loyal customers over 180 countries in the world. From the record, its revenues in 2007 was very high, \$76.5 billion dollars, which increased 12.1% from a year back and their net profit in that period is \$10.3 billion dollars (Datamonitor, 2008). Eight years later, P&G recorded \$83.06 billion dollars during the end of 2014, while the operating profit was \$15.29 billion dollars and the net profit was \$11.64 billion dollars. Each year revenues and profits increased gradually from the previous recorded year. In addition, this firm also employed 118,000 people over 180 countries (Datamonitor, 2015). Definitely, the ultimate success story of P&G today is the outcome of series of innovations done by the firm for over 170 years ago and this is also the reason why this giant firm is repeatedly staying at the world top ranking business (Davey & Sanders, 2012).

## 6. Firm Innovativeness Leads to Firm Performance

From the perspective of RBV theory, turbulence of market and competitive intensity are two main factors in market which may influence the need of firm to be innovative (R.M Grant, 2010; Penrose, 1959). These market conditions are determined by the behaviours, tastes or at least the psychology of customers (Penrose, 1959). Firms without any 'shield' to protect their sustainability in market changes may suffer. Therefore, in order to deal with such turbulence conditions, the innovativeness of the firms is said to support them to create or renew the relevance of firms' special particular assets (Aragon-Correa & Sharma, 2003; Atuahene-Gima, Li, & De Luca, 2006; Miller & Shamsie, 1996; Tsai & Yang, 2013).

Because environments evolve unstoppably, firms must apply innovations timely and the most vital innovations are those that can lead firms to achieve competitive advantage at a certain extent, thereby improving the firm performance (Damanpour, 1991; Henard & Szymanski, 2001; Porter, 1990). In addition, it is generally conceded that innovation contributes to firm and business performance regardless of any market turbulence (Hult et al., 2004). Anyhow, a firm should match its resources and capabilities to suit the needs of the business environment for the sake of sustaining its competitive advantages (Teece, 2007; Tsai & Yang, 2013). Then, exists the significance of technological and administrative innovation which acts appropriately to fit with the environmental requirements, parallel with a fact which stresses that various types of innovations come with a great sense with the interplay between those variations (Cooper, 1998). For instance, innovative firms inspire their employees to design or invent new and improved products (Luk, Yau, Tse, Chow, & Lee, 2008) and make experimentation with fresh ideas and actions (Hult et al., 2004; Menguc & Auh, 2006). In summary, firm innovativeness sparks innovative attitudes that result in new processes, services, or products (Dibrell, Craig, & Hansen, 2011; Hurley & Hult, 1998; Tsai & Yang, 2013). Hence, managers should significantly enhance the innovativeness of their businesses in their battle to sustain remarkable business performance of their firms (Hult et al., 2004).

In order to conclude the liaison of firm innovativeness and firm performance as discussed above, many empirical findings showed the importance of innovativeness as a determinant for business performance of the firm, regardless of any market turbulence conditions. But, this innovativeness is much critical needed in high market turbulence and intense competitive environment to result in superior performance (Hult et al., 2004). Hult and Speh (2010) suggested that it is compulsory for a firm to continuously be innovative to ensure the products are aligned with the market changes, requirements and competitions. Moreover, the management should actively seek to be innovative and maintain a constant phase of innovativeness regardless to what extent the turbulence is. In a nutshell, innovativeness is outstandingly important to the success of any firms in their business activities (Hult et al., 2004).

## 7. Conclusion

Innovation is an important element in today's world as products, services and technologies are moving faster to take place in customers' hearts, thus generating unbreakable benefits and profits to the firms and businesses. Innovation, which is normally defined as to create or improve products or services to produce something new, has started a long time ago, and has been applied by many successful firms so they could compete with other existing competitors. Innovation is divided into several dimensions but according to literatures, administrative and technological innovation are the most discussed in numerous of studies. The combination of administrative and technological innovation in any firms makes the firms more competitive. It is aligned with RBV theory which highlighted that firms' innovativeness leads to firm performance generally and it has been empirically proven by many previous studies. In addition, serial innovation is also very vital for a firm to maintain its competitive advantage, performance and customers' satisfaction, like P&G company which maintains steadily in the world's market since 170 years ago. Continuous transformation or changes over the demand of current market is a promise for a firm to stay as customers' choice at any time. However, each industry or firm has their own specific ways of innovation in order to sustain their good performance. Hence, for future research, researchers are suggested to study specifically how each industry in this world such as Agriculture, Airlines, Broadcasting, Defence, Electronic, Telecommunications etc. innovate themselves to be parallel with the fast moving international market. From there, a specific innovation model for each industry could be developed and it is going to be a great contribution to the industry players and body of knowledge.

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