

Technological Innovation Networking Features in Pharmaceutical Companies Based on Social Network Perspective

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Abstract According to social network perspective the paper introduced technological innovation features in pharmaceutical companies and analysis of social networking features of technological innovation in listed firms. In the end, the paper concluded many features, such as power characteristics of social networking in technological innovation of listed firms.

Keywords Feature • Social network resource • Technological innovation

1 Introduction

1.1 Technological Innovation Based on Social Networks in Listed Firms

There is a unique research value of social networks which work as the main carrier and the basis of operation for technological innovation. This chapter is about technological innovation based on social networking framework, focusing on logic, operating mechanism, factors, the relationship between government and market, function. Technological innovation theory based on social network can be

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described in the following five parts: connotation and function of technological innovation based social networks, feature analysis of technological innovation based social networks, external network analysis of technological innovation, and internal network analysis of technological innovation, strategies to realize the value of technological innovation network.

Technological innovation is a new trend of marketing management for enterprises to cope with economic globalization recently. In order to address the complex economic environment and ultimately to gain a competitive advantage, many companies began vigorously promoting technological innovation. In fact, few pharmaceutical companies can do real technological innovation successfully getting out of social network. Therefore, this chapter does in-depth analysis on technological innovation inner mechanism and related factors based on the theoretical framework of social networks.

2 Connotation and Significance of Technological Innovation Based Social Networks

This research is based on two aspects, first is a real driving, followed by lack of theory. China is referred to a “relationship-oriented” society. Through 30 years of reform and opening up, there is still a matter of concern, that recourse must be gained with relationship and social relations is an essential marketing channels. Actually social relations become the most efficient access to scarce resources (Adrian 2004). It is truer in marketing and technological innovation are expanding the scope of its operations to the entire social network. When seeking the theory to interpret this phenomenon, social networks are used as a theoretical framework. Currently, scholars both at home and abroad haven’t done research on social network as a marketing research theoretical framework and research on technological innovation is still not enough till now. As a result, authors study in depth exploration of technological innovation theory from the social network theoretical framework (Anheier et al. 2007).

2.1 Connotation of Technological Innovation Based Social Networks

Social network is generally understood to be a range of social contacts or relationships that an actor affects other actors. In particular, the social network is a group of associations between actors and actors. Social networks have two typical elements, namely “nodes” and “contact”. Node “is the subject of social networking, the actors;” “contact” is associations between actors (Ansoff 1968). Joining a group

of actors together to constitute the social network, the network “nodes” action could be represented by a type can be of many types. Joining a group of actors together constitute the social network, action of “nodes” in the network could be represented by a type or many types (Ansoff and Stewart 1967; Antoniou and Ansoff 2004).

The concept of social network is a unique one from China. Interpersonal traditions of Chinese society can be described as different patterns. Hsiao-T’Ung Fei pointed that the social structure model of China is the concentric circle pattern of interpersonal relationship (Bertels et al. 2011; Besselaar and Koizumi 2005).

In traditional Chinese society, community support and resources are related with ties of blood and the way resource flows is similar with features of Fei’s point of “Pattern of difference sequence”, individual-centric, members of the Central keeping the external at a distance, available resources is reducing (Bettis 2004; Bettis and Hitt 1995). Connotation of technological innovation based social networks is about marketing paradigm change, whether the marketing on trade or relationship they just view marketing from the perspective of buyers and sellers, they are just confined to a trading relationship. Trade Marketing focuses on trading relationships while relational marketing emphasizes mutually benefits. However, both of them ignore multiple interaction of marketing within a social network.

2.2 The Uniqueness of Technological Innovation Based Social Networks

The uniqueness of social network refers to marketing activities concern more about network structure of organizations and individuals, emphasizing to reveal the politic, economic or social environment structure from point of relationship. Social network is a unique perspective of the research on technological innovation. Its unique is that social network research based on the assumption on relationship between the multiple interactive subject, discussing social structure on multi-agent interaction, building logic ranging from relationship to network structure. Further, the starting point of the social network is relationship, but the structure of the organization and structure on the influence of the member in the organization is its real topic of discussion (Betz 1993; Blackburn 2003; Bosworth and Webster 2006). The social networking features of the technological innovation include: (1) all the members are related mutually. (2) They’re treated as connectors and offer lots of information. For example, experts play a professional role in the network. They have technological capability to evaluate the information from the enterprises and then transfer it to others. Public praise is the promoter of it. They will affect ordinary consumers directly. They are treated as opinion leaders. (3) Technological innovation is produced during the mutual activities among members. It makes no sense, if technological innovation operates without mutual connection of members (Branscomb and Keller 1998).

2.3 The Social Networking Value and Meaning of the Technological Innovation

The social network theory believes that the society is showed though the relations among actors. These kinds of relationships form the structure. (Relationship) network is the social network system of the flowing resource. Social network theory origins in the west coincide with relationship between characteristic of Chinese society here. Using mutual benefits of social networking resource explains the current technological innovation. As a beneficial tool, social network explains and reveals the effect of social relationship in technological innovation (Brotchie 1991).

Investigating technological innovation, in the view of social network theory, is an extremely challengeable work. Construction of theoretical framework of social network is both creative and difficult part of this article. When you treat social network as a kind of resource, and construct it professionally, you will meet problems like term selection, the definition of the concept, logical reasoning. What's more, social network is a branch of sociology. Although social network theory has been used in many fields of non-social research, it must be a hard project to understand social network theory and related knowledge for non-technological innovation researchers (Burgelman and Maidique 1988).

However, how to implement resource configuration features of social networks? To understand it, the author started to read and research lots of literature of social networks both at home and abroad. After searching it, there is no one scholar treating social networks as technological innovation networks. Most of them just describe it as a social system of flowing resource simply. To technological innovation, social network lays the foundation of theories. Typically, non-market resources, such as social capital is treated as the social foundation of realizing the technological innovation because of its flowing in social network.

3 Analysis of Social Networking Features of Listed Firms Technological Innovation

3.1 Reciprocity Characteristics of Social Networks in Technological Innovation of Listed Firms

According to transaction cost economics, the various stakeholders of technological innovation for listed firms, they are for their own motivations. There is no doubt that resource plays an important role in pursuing interest. In Theory of Right, Emerson emphasized that for consuming more returns, remaining distribution is depended on relative right, social members will get more interest, if they have more rights. But it doesn't mean to deny the cooperative relation. On the contrary, because technological innovation has existed mutual cooperative and beneficial

relationship, it will combine different technological innovation goals to be a public action through some system, so that reaching the destination to create value. Actually, among social networks, if members can't maintain the basic cooperative relationship, technological innovation system of listed firms will lose their values and meanings. The mutual cooperation of members makes social network possible. The cooperation of technological innovation system can create more value to the society. So, members should maintain mutual benefit and cooperation to gain more interest (Rokkan and Haugland 2002).

3.2 Power Characteristics of Social Networking in Technological Innovation of Listed Firms

In essence, listed firms enter social network with purpose of getting interest. They hope to maximize personal interest and mutual relationship will affect relationship of exchange. So, in this exchange, right is not only a manner to negotiate each part, but also a major tool of pursuing interest. To every member, when the right of social marketers makes the profit bigger than marketing cost, marketers can realize the improvement of social life by networking rights. Social marketers of listed firms can use their rights to realize the improvement of social life, specifically in promoting and practicing new life style and concepts.

4 Analysis on the External Networks of Technological Innovation in Listed Firms

4.1 The Relationship Between Pharmaceutical Social Marketers and Government

Marketers have to deal with stakeholders. Whether technological innovation activities will be successful, it depends on government's support. According to literature both at home and abroad and researches, there are lots of researches concerning pharmaceutical industries and technological innovation. Technological innovation becomes more and more concerned, but because of asymmetry, qualitative study on technological innovation is really in right place. Because of divorce of theory and practice, there is distance between people's expectation of technological innovation theory and practice. Aimed at these shortcomings, scholars of management and social sectors began to analyze technology innovation of enterprises by other stakeholder views, especially in the view of the government.

From the perspective of dialectics, we can see: It's obvious to get attraction in technological innovation of listed firms. As a phenomenon of enterprise marketing, previous researches are only limited in surface. Reviewing technological innovation

and see as external stakeholders, to improve the judge of technological innovation from social performance and behaviors. Government's regulation is significant to care about people in pharmaceutical industry. Researching technological innovation of listed firms in the view of government, on the one hand, is to improve the level of technological innovation in listed firms, to construct technological innovation system, finally construct a harmonious socialist society; On the other hand, provide theoretic support to improve performance by researching. According to the theory, the superstructure is based on the economy, economy and performance of enterprises can be improved. They also hope to realize virtuous circle and promote the development of socialist market economy and construct socialist harmonious society.

According to theories of stakeholders and the particularity of pharmaceutical industry, social marketers should pursue overall interest rather than major interest. Connecting government's major function in economy is applying ways in economy and law to realize macroeconomic regulation and control in national economy, as well as, maintain normal and fair trade orders. So we should consider the government when we are researching technological innovation of listed firms, specifically, like investment of government health departments, improvement of health systems, execution and so on. We can classify those into external governance factors. The improvement of superstructure is also beneficial to development of economy. From the perspective of listed firms, good political relations are beneficial to improve self management of pharmaceutical social marketers.

4.2 The Relationship Between Social Marketers and Consumers of Listed Firms

In consumer-oriented view, the marketing should be changed from visible products to service to businessmen. It can understand the value of marketing more naturally. Consumers emphasize that the common and essential core of marketing is service. Value is produced by common participation and share of different members in social network. What's more, the exchange concerning knowledge, skills and manners between suppliers and partners, so customers can play an important role in experiencing values by attending and consuming. Consumers can decide the value of creativity and connect with them deeply. Of course, common value of creativity is not limited between suppliers and customers, it happens between customers and other members of listed firms like customers, leaders, experts, partners and shareholders. Social network can strengthen the dialogue with customers and customer groups and provide valuable service and integration of commodity resource.

There is a presupposition before technological innovation is changed. That means pharmaceutical social marketers change the traditional modes: producers produce goods and consumers consume things, then realize common production and consumption, distribution and share of benefits. However, it is depended on

strategic thinking, including share thoughts, communication, experience and sincere cooperation. Of course, driving it in the back is a way to create value by sharing skills, knowledge and experience, commonly.

5 Conclusion

Technological innovation behavior regards public charities as its main content. As enterprise is an organization which views creating material wealth as a main task and economic success as its measuring scale, there is more sociality and ethicality in corporate technological innovation behavior. And therefore a long time ago, the topic of corporate responsibility has been studied in the field of business ethics. The motivation of corporate technological innovation behavior may be complex, but the results tend to reflect the “public good” and “social welfare” feature. From this point of view, corporate technological innovation behavior has the ethical attributes, namely, acts of technological innovation in the social network’s performance, its ethics is characterized by a social contract in accordance with the requirements of the outside of the “game rules” engaged in business activities of enterprises do “should be” to do. Buffer-type behavior of technological innovation is actively trying to change the business environment outside the enterprise. It is one of the active strategic behaviors.

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