

Utilization of Knowledge Management in Marketing of Knowledge-Based Products; The Necessity of Developing a Native Culture-Adopted Model

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Abstract

Knowledge-based wealth creation is the main component of economic policies in Iran which will be achieved by promoting knowledge-based companies. In knowledge-based enterprises, economic growth and employment creation are realized in line with the innovation capacity. But the important thing to note is that the mere production of knowledge-based is not a guarantee of the realization of wealth, and there is still a gap between the production process and the achievement of wealth. In this view, the use of knowledge management in the marketing of knowledge-based products is one of the most important considerations in the creation of knowledge-based wealth. In this regard, it is necessary to develop a modern and native model for the purpose of knowledge management in the marketing system of knowledge-based products according to some cultural, political and economic characteristics of Iran society.

Keywords: knowledge management, knowledge-based products, marketing of knowledge-based products, customer

1. Introduction

The gross value added of high-tech industries in Iran has accelerated more than the global trend and has increased by 713% in 2010. The total value added for these industries in 2010 was 18.2 trillion dollars (Shahnazi, 2012). According to the World Bank's report in 2012, Iran with a mean of 3.91 out of 146 countries has been ranked 94th in terms of knowledge-based economy, which is one point higher than the year 2000's ranking and 8 points higher than the year 1995. Likewise, Iran is ranked 15th among the 20 countries of the region (Elmkhah & Sadeghi, 2015). Accordingly, in the year 1404 Prospect Document of the Islamic Republic of Iran, it has been projected that 50% of the country's GDP (Knowledge base for all, 2015) and 20% of the country's income should be produced through knowledge-based products (Period of authority of science and knowledge base, 2015). The foreground of achieving such a goal in Iran's 1404 vision is to set up and support knowledge-based companies, which has been getting on the policy making agenda in recent years. In knowledge-based enterprises, economic growth and employment creation are realized in line with the innovation capacity.

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This means that research and development (R&D) achievements are continuously transformed through investment into a product, process, or system, and as a result, become an important factor in innovation and exploitation of the potential of technology in the national economy (Entezarian, 2015). In these companies, the ratio of specialist staff to the total staff is high, and technological changes are higher than traditional ones, and their growth and development are more dependent on technological development. In addition, their competitive advantage is mainly technological innovations (Fakhari, 2014).

Knowledge-based companies are shown to face a higher risk than traditional ones, especially in the stage of formation. So then, providing the required financial resources while accepting future threats are highly important (Golalizadeh et al., 2007). Among the most important measures to provide funding for knowledge-based business, in addition to providing support in the form of venture investments, is to create the necessary mechanism for marketing and managing the sale of knowledge-based products and services. Given the nature of knowledge-based products, as well as the specific characteristics of the customers of these products, which are somewhat different from that of typical products in markets, focusing on marketing patterns, especially knowledge-based patterns, are amongst key strategies to help finance and sustain knowledge-based companies. In this review article, we will discuss the principles of marketing process of products created by knowledge-based companies and will put emphasize on the need to develop a native model for this purpose.

2. The Knowledge-based origin of a product does not provide any guarantee as regards its marketing

In essence, a knowledge-based product is a technology-based one. Due to their novelty, rapid changes, and relatively complex nature, knowledge-based products are riskier than others (Betaab & Shojaei, 2000). Knowledge-based products and services are not mass-produced, but are rather custom-built according to a particular customer's order. Furthermore, due to their weakness to protect intellectual property rights and the rapid innovation of products and services, they have a relatively short life span and keep up with environment changes (Entezari & Mahjoub, 2013).

The technical knowledge to design and produce a laboratory- or industrial-scale knowledge-based product, due to technical complexity, can hardly be copied which prohibit other competitors to enter into the market. These products require significant research and development by a dedicated technical team, which should lead to product value added (Homafar & Porjafar, 2016). Knowledge-based products now play a fundamental role in the economic development of countries, with their share of global industrial output rising (Shafiei & Sabzi, 2016). According to Griddings (2005), the main attainment of knowledge-based enterprises is an innovation in economic development that is to increase the wealth of the community, and ultimately leads to encouraging innovation and changes in the tastes of the customers (Golabi et al., 2011).

But, the important thing to be taken into consideration is that the mere knowledge-based nature of a product does not guarantee its sale. Instead, it is necessary to plan for the marketing of knowledge-based products similar to the governing equations of the market for ordinary products. Unfortunately, some researchers, under this false assumption that the knowledge-based origin of a product is the greatest competitive advantage, lack a well-established marketing program and are less likely to use the expertise in this field. In essence, this belief is a great danger to the market of knowledge-based products.

2. To sell knowledge-based products, one must recognize the characteristics of their customers

DeLong (1997) and Grant (2006) pinpointed that a knowledge of consumer behaviors and target customers are critical for managing the marketing of smart products. In knowledge-based companies, customers have a value adding role and their satisfaction will influence the re-sell and will create a positive image of the company which ensure durability, profitability, and help to maintain the company's life. In these companies, customer satisfaction is a factor in gaining competitive advantage over competitors; and the increasing demand of customers creates a strong competition in the sales of products so that the customers have more choices when buying (Golabi et al., 2011).

Due to the novelty of the product, in the case of innovative products, the customer is not exactly aware of his needs (Gliga & Evers, 2010). High-tech customers often do not have high price concerns, they are looking for the benefits of the new technology, and in many cases are willing to pay a high price for the acquisition of a high-tech product (Siems, 2012).

3. The marketing of knowledge-based products is fundamentally different from typical products

Knowledge-based enterprises play a key role in the development of the commercialization of research results; however, these companies face a number of problems in the economic arena, most notably the marketing challenges of products or services (Malekzade, 2007). The statistics have shown that the average rate of failure of the high-tech products in the market is 50% higher than other products (Mohammadi&Begdeloo, 2012). The reasons for the failure of the marketing of these products include: weak presentation skills, lack of interconnections of distribution networks (Golabi et al., 2011), inability of companies to supply products at international technology fairs, and inability to provide finance of oversea trade. Fundamentally, the development of knowledge-based companies depends on the existence of a knowledge-based market (Risks associated with Knowledge base entrepreneurship, 2010).

Due to the absolute specificity of these types of products, the market of knowledge-based products is almost exclusive and qualitative market that also has a high profit margin (Analytical report of the patent market, 2016).

In knowledge-based companies, marketing is aimed at creating marketing knowledge, sharing it with other sectors, and promoting the use of this type of knowledge (Akhavan&Chirani, 2012). The most important stages in the marketing of products by knowledge-based companies are as follows: identifying the users of new technologies and providing them with basic information, convincing customers about the usefulness of new technologies, consumers' decisions about accepting or rejecting technology, technology application, and, finally, verifying the results.

When choosing marketing strategies, the knowledge-based enterprises should consider some factors, including the extend of using new technology, the degree to which new technology is adapted to previous experiences and customer needs, the complexity and limitations of using new technology, the small-scale level of competition in the implementation of new technology, the simplicity and comprehensiveness of the results and using new technology for users and other decision makers (Mohammadi&Jafarpanah,2014).

Albino et al. (2004) claimed that the interaction of knowledge-based businesses with customers is one of the most important factors influencing the marketing process of knowledge-based enterprises (Albino et al., 2004).

4. How does knowledge management help the marketing of a knowledge-based product?

Cantner et al. (2009) argued that the performance of knowledge-based organizations in the market is superior to other organizations with a traditional approach. Organizations must develop appropriate capabilities in order to target market-based knowledge in customers, competitors, members of communication channels and suppliers in order to achieve the full benefits of knowledge management (Tahate et al.,2010).

In knowledge-based companies, while traditional manufacturing has its own importance, knowledge is the cornerstone of growth, motivation and basic preparation to stay ahead of their competitors. Knowledge-based companies are distinguished from industrial organizations in that they rely on the knowledge capacities of the staff. The authorities of knowledge-based companies are well aware that knowledge assets play an increasingly important role in business survival (Mirkamali et al., 2000).

Knowledge-based enterprises know where to look for more opportunities and where to pay more attention to assess the value of potential opportunities (Wiklund& Shepherd, 2003). One of the solutions that these companies have taken to address the challenges of the past 20 years is the smart use of knowledge management (Izadyan et al., 2012). The lack of proper knowledge management mechanisms in companies makes it difficult to create and promote the market knowledge and even sometimes prevents it. In contrast, successful knowledge management, implemented in some companies, provides the conditions for the processing, interpretation, and use of knowledge about the market process and its events. Therefore, integrating knowledge management and market orientation can be a key feature and improves the competitive position within the company (Kmieciak&Michna, 2012). Kohlbacher showed that the use of concepts and methods of knowledge management in the fields of marketing knowledge and marketing functions enhances the efficiency and effectiveness of the organization, especially in introducing new products or entering into new markets, creating and transferring knowledge as well as collaborating within and outside the company (Kohlbacher, 2009).

5. Discussion and Conclusion

It seems that with the development of higher education in the world and Iran and the entry of graduates from different fields into the labor market, the development of knowledge-based companies is a proper way to engage these forces in the economic development of countries and the creation of knowledge-based wealth. Therefore, knowledge-based wealth creation through the completion of the research cycle and delivery of knowledge-based products is one of the major axes of economic development and the economic resistance program in Iran.

But the important thing to note is that the mere production of knowledge-based is not a guarantee of the realization of wealth, and there is still a gap between the production process and the achievement of wealth. The most important general orientations that policy makers should take into account include:

- To identify market demand and to generate knowledge-based products and services conforming to the needs.
- To focus on the characteristics of the customers of knowledge-based products, in particular international customers.
- To design and deploy new product distribution channels using the capacity of cyberspace and IT infrastructure.
- Training the professional marketers of knowledge based products.
- Designing and implementing a post-sales service delivery system for knowledge based products using the potentials of graduate students.

Given the feature of the customers of knowledge-based products, which are generally educated, the use of knowledge management in the marketing of knowledge-based products is one of the most important considerations in the creation of knowledge-based wealth. In this regard, it is necessary to develop a modern and native model for the purpose of knowledge management in the marketing system of knowledge-based products. In this vein, while considering the economic structure of the country and the reliance on the state economy, one should consider some elements such as domestic considerations, personality traits, cultural ideas, social characteristics of the producers and consumers of knowledge-based products, as well as the availability of hardware and software infrastructure in the country, and, of course, considerations in the field of Islamic economics. Obviously, this pattern could open up a clear roadmap for research centers and knowledge-based companies to turn ideas into wealth.

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