Research Article

Investigating the Effect of Innovation on Effective Ways of Increasing Sales: Case Study of Dana Insurance

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ABSTRACT

Due to increasing importance of innovation in creating competitive advantage in organizations, it can be said that innovation is a key factor in gaining competitive markets. On this basis, it can be argued that the insurance industry as a competitive industry in all stages of development and promotion fundamentally needs innovation, research and enhancement. From this perspective, this research investigates the effect of innovation on effective ways of increasing sales of liability insurance, one of the most important insurance services provided by insurance companies. Research population included experts of Dana Insurance in Tehran. Accordingly, in relation to the subject of the research, 127 questionnaires were completed as statistical sample by insurance experts. Data collected by questionnaires were analyzed using SPSS. Spearman's correlation test was used to examine the significant relationship among variables. The results of hypotheses testing showed that service innovation, process innovation and administrative innovation all have positive and significant effect on the sale of liability insurance; hence, all three hypotheses were accepted. Therefore, in general, it can be stated that innovation has a positive and significant effect on the increase in sales of liability insurance.

Keywords: Liability Insurance, Innovation, Service Innovation, Process Innovation, Administrative Innovation.

INTRODUCTION

The contemporary world is on the verge of tremendous changes and transformations; transformationsthat cannot be found in any period of human history; a global and inclusive revolution has dominated all areas and angles of human life that will create a deep gap between the past and future of the world. The dramatic increase in global competition, along with a change towards knowledge-based economy, creates a renewed emphasis on innovation. Rapid changes in the competitive environment create a new world of competition.This new economy can be directed by those who are innovative and creative, and develop knowledge, or transfer it to new products, methods and services, faster than other competitors. Creativity is at the forefront of everything supported by entrepreneurial action and aims to create value through the use of knowledge. Therefore, the superior value for the customer is transferred through innovation in organizations (Fatahi&Sadeghi, 2015). Innovation is considered as one of the vital and key sources of competitive advantage in today's ever-changing environment. According to management researchers, innovation capability is the most important factor affecting the performance of an organization (Crossan&Apaydin, 2010).

Innovation in companies involves creating, accepting and applying new ideas, processes, technologies, products and services in the organization. Organizational innovation is the use of ideas which are new for the company, and it is very necessary to use these new ideas in the body of management system, processes, services and marketing system of insurance companies. This can lead to more competitive advantage and market share. In recent years, the country's insurance industry has been affected by new developments, the most important of which are privatization and liberalization. It is expected that policies of liberalization, privatization and increase in thenumber of insurance companies will enhance the efficiency and competitiveness of economic enterprises, and ultimately will lead to welfare of general public by increasing

economic efficiency and sustainable economic growth. In such a situation, competition in insurance companies is enhanced to provide services to customers, and companies need to reduce their costs and improve the quality of their services to maintain and attract customers (Sehat et al., 2015). Marketing research is one of the main ways of using environmental opportunities and coping with threats, which is the basis of making constructive and proper decisions by managers; in recent years, its value and importance have been identified more than any other time. Consumers, if they have the right to choose, tend to buy goods that would better meet their needs and desires, and consumers are more satisfied with. Due to the low coefficient of insurance penetration in the country (1.4%), the extent of liability insurance (according to the central insurance statistics, it accounts for the 5.5% of the portfolio volume of insurance companies), a good potential in the liability insurance market, and high capacity of insurance joint-stock companies in the field of risk acceptance, research in this area seems necessary (VadieiNoghabi et al., 2015). According to the mentioned categories, innovation plays an important role in marketing, and the importance of selling and marketing of liability insurance as one of the most import ones in the country is clear for all. Hence, this study investigates the impact of innovation on the effective ways of increasing sales of liability insurance.

Review of related literature and theoretical foundations
Theoretical background
The rapid growth of economic firms, rapid changes, environmental ambiguity and some other issues have caused that innovation category be of great importance in organizations. Today, service activities, alone or in combination with factory productions, are among the main drivers of global economic competitiveness. Innovation in service firms, including the insurance industry, is a relatively new category that has been raised over the past two decades, and an extensive related literature is forming (Sehat&MohammadpourDoustkouhi, 2010). Over the past few years, the insurance

industry (in the world) has undergone a series of changes due to financial reforms, advances in information and communication technology, globalization of financial services and economic development. These changes have had a significant impact on efficiency, change in productivity, market structure and performance of the insurance industry. Innovation that refers to the use of new product, service or method in business approaches and practices, affects economic success and market share in increasingly competitive global markets. Hence, providing better products and services to gain competitive advantage and customer satisfaction and loyalty is a matter of rapidity in the financial services world, which relies on innovation in this competitive world (Epetimehin, 2011). Epetimehin (2011) stated that the insurance industry can improve its business and gain competitive advantage through marketing creativity and innovation. Also, creativity and innovation in providing new services are important factors in meeting customer needs and pricing in the insurance industry. Lopes (2017) conducted a research on the insurance industry in relation to the impact of innovation on the understanding of car insurance customers. In this study, he concluded that companies that are more innovative are more likely to achieve sales goals. Accordingly, it can be said that innovation can create competitive advantage in the insurance industry and lead to increased sales in the field of any type ofinsurance.

Innovation
For the first time, Schumpeter (1934) defined the concept of innovation. He linked innovation with economic development and introduced it as a new mix of wealth-generating resources. Organizations need to innovate in order to meet the changing demands and lifestyles of their customers, as well as to exploit the opportunities created by technology and market changes (Rowley et al., 2011). Innovation has increasingly become one of the main drivers of long-term success of companies in competitive markets because companies with high capacity of innovation will be able to respond environmental challenges more quickly and effectively. Hence, innovation plays an important role in creating value and gaining

competitive advantage (Jimens& Valle Sanz, 2011).

Innovation is recognized as a very important factor in organizations. In the past, innovative literature addresses two important approaches in regard with innovation; a goal-oriented approach that focuses on innovation on its own, and a subject-oriented approach that focuses on issues such as country, industry, organizations and groups that are responsible for innovation and its implement. Organizational innovation is described as the formation of new, important and useful products or services in the organizational environment (Khan et al., 2009). Organizational innovation is a management system that puts an emphasis on the mission of the organization and seeks new and exceptional opportunities, and identifies the criteria for success. Drucker believes that success in innovation requires hard, focused and purposeful work. Innovation is a key factor in creating global competition that leads to organizational growth, incorporates future success, and is like an engine that allows organizations to have a sustainable efficiency in the global economy (Lin & Chen, 2007).

The innovation components used in this research are service, administrative and process innovation. Service innovation can be defined asfollows: Providing new services to existing or new customers and providing existing services to new customers (Damanpour et al., 2009). Process innovation refers to this category that to what extent the organization employs new technologies, and puts new testing methods into practice (Jimens& Valle Sanz, 2011). Administrative innovation relates to changes in organizational structure, management approaches, strategies, administrative processes and systems (Damanpour&Aravind, 2011).

Liability insurance

According to Iran's civil liability law, the whole society, whether natural or legal entities, is liable to damages and injuries to others, and must be compensated for. Common civil liability insurance is based on quasi-delict or quasi-intentional liability that agents of damage cause personal and financial losses to someone else inadvertently and negligently. Determining the liability of individuals is also defined by the judiciary. Fundamentally, the foundation of civil reliability is based on this general principle that everyone causes losses to another one, must be compensated for, and this category is rooted in the provision of social security and justice. Regarding the complexity of today's societies, social and economic security is not only guaranteed by the laws of civil liability to protect the rights of the losers, but there should be an approach that the agent of damage be financially able to compensate for. Today, everybody knows that one of the effective mechanisms that can cover the compensation for losses, is the insurance technique, and hence, liability insurance has become a necessity, so that one of the indicators of measuring the growth and promotion of culture and civility in any society can be assessed by the growth rate of liability insurance in that community. The use of liability insurance is a symbol ofestablishing democracy in societies (Abbaszadegan, 2002). Therefore, from this perspective, due to the increasing importance of liability insurance and lack of research in this field, it seems necessary to conduct a study investigating variables that are affective on liability insurance.

Experimental background

DehdashtiShahrokhet al. (2010), in their research titled *Innovation to Insure Uninsurable Individuals* stated that the subject of risk in insurance coverage is described by practical and historical examples. They discussed about effective issues related to promotion of innovation to insure uninsurable categories. They argued that investigating the criteria related to insurability of a category can be very influential in covering uninsurable risks. Finally, the reform of relevant terms and conditions, innovation, risk selection and proper and reasonable pricing, reinsurance, public-sector support and public-private partnerships were introduces as the most important facilitators of risk insurance.

Sehat&MohammadpourDoustkouhi (2011), in their research titled *Identification and Ranking Innovation Components in the Insurance Industry*, investigated ten components of organizational innovation, which were analyzed in this research; they were respectively as follows: Continuous education and development

of employees, external focus, creative atmosphere, leadership, learning organization, comprehensive engagement with innovation, key individuals, appropriate organizational structure, extensive relations and team making which were examined after being approved by insurance industry experts among top executives of insurance companies. The research method was descriptive and survey type, and statistical sample included 64 senior managers of the insurance industry. The data obtained from the questionnaires showed that all components of the research are approved. In other words, all of these components are effective on creating innovation in the Iranian insurance industry.

Sehatet al. (2015), in a research titled Relationship between *Organizational Innovation and Competitive Advantage in Insurance Companies*, explained the relationship between organizational innovation and competitive advantage in insurance companies. In this research, the existing status of organizational innovation in insurance companies wasalso investigated as a subsidiary objective. The statistical population of this study included senior executives ofprivate insurance companies in Tehran that 130 individuals were selected as sample. A standard questionnaire was used to collect data. The research results showed that there is a positive and significant relationship between the overall organizational innovation and its types and competitive advantage in insurance companies. Among the types of innovation, product innovation has the greatest relationship with the competitive advantage in insurance companies. Also, one-sample t-test results indicated that insurance companies are in the optimal situation only in terms of process innovation.

VadieiNoghabiet al. (2015), in a research titled *Identifying Effective Ways to Promote Sales in Line with Increasing Sales of Liability Insurance in Iran's Insurance Joint-stock Companies*evaluated the views of experts of Iran's insurance company and insurance services companies and Iran's insurance sales brokers in Tehran in regard with effective ways to promote sales in line with increased sales of liability insurance in Iran's insurance company, as well as prioritizing promotional policies affecting

enhancement the sales of liability insurance. To examine the views of experts of insurance services companies and Iran's insurance sales representatives in Tehran, a questionnaire was developed that included all the hypotheses and objectives of the study, and it was distributed among statistical sample. Finally, after analyzing the data, the priorities affecting sales of liability insurance in Iran's insurance joint-stock company were determined as follows: According to experts of Iran's insurance and insurance servicing companies and Iran's insurance sales representatives in Tehran, the role of printing and distributing catalogs containing all data related to liability insurance in increasing sales of liability insurance has priority over others. In second and third places, television advertising and holding seminars for individuals and insurers of liability insurance are respectively effective on increasing sales of liability insurance.

In a research, Damanpouret al. (2009) investigated the results of applying three types of organizational innovation (service, technological process and administrative process) in service organizations. The main hypothesis of this research is that the impact of innovation on organizational performance depends on the combination of any types of innovation over time. To test this hypothesis, the innovation activity of 428 public service organizations was analyzed in the UK over a four-year period. The research results indicated that focusing on the applying a specific type of innovation annually is not appropriate for service organizations; stability in applying a combination among types of innovation over a number of years has no effect on performance, and the category of divergence and branching of the industry's norms and rules in applying types of innovation can be influential on organizational performance.

Epetimehin (2011), in a research titled *Achieving Competitive Advantage in the Insurance Industry*: *The Impact of Marketing Innovation and Creativity,*has responded to the question of whether creativity and innovation in marketing are effective on gaining competitive advantage in the insurance industry or not. This research indicated that the insurance industry

can improve its business and gain competitive advantage through creativity and innovation in marketing. Also, this research results showed that creativity and innovation in providing new services are important factors in meeting the needs of customers, and they are essential in pricing, promoting, distributing products and using technological innovations in attracting new customers.

McDermott &Prajogo (2012) in their study examined the relationship between service innovation and organizational performance in small and medium-sized enterprises (SMEs) in Australia. The purpose of this research is to investigate the relationship amongexploratory innovation, exploitative innovation and organizational performance of service SMEs. Moreover, this research examines the internal relations of innovative trends in predicting organizational performance, and the impact of organizational size on the effectiveness of each of them on performance improvement. This research results show that each of innovation trends (exploratory or exploitative) has a direct relation with organizational performance. Also, innovation trends, in addition to being effective on performance individually, can lead to improved organizational performance collaboratively. Another finding of this study is that the size of organization moderates these relationships.

Comettoet al. (2016), in a research titled *Sales and Marketing Role in the Implementation of Innovation: An Empirical Analysis in Six South American countries*, stated that innovation management is a strategic factor for companies to achieve competitive advantage and superior performance. They also argued that the efficiency and effectiveness of sales

performance to manage the implementation of innovation are considered as important factors in business success.

Lakdawalla et al. (2017), in a study titles *Value of Insurance in Medical Innovation*, argued that economists consider medical innovation as a risky value, which creates a health advantage by increasing financial costs for consumers and payers. They provided an alternative framework for all sources of health insurance value. They showed that the physical value of new technologies' insurance is greater than the amount of their financial costs.

RESEARCH HYPOTHESES

The overall aim of this research is to investigate the impact of innovation on increasing sales of liability insurance. The practical purpose of this research is to examine and show the importance of the effects of innovation components on the sale of liability insurance to public and private insurance companies and all insurance brokers in Iran, in order to pave the ground to promote liability insurance sales by innovative appropriate policies. Accordingly, the research hypotheses are as follows:

1. Service innovation has a significant effect on the increase in sales of liability insurance.
2. Process innovation has a significant effect on the increase in sales of liability insurance.
3. Administrative innovation has a significant effect on the increase in sales of liability insurance.

Conceptual model of research

According to the research literature and background, as well as conceptual definitions of research variables, the conceptual model of this research is represented in Figure (1).
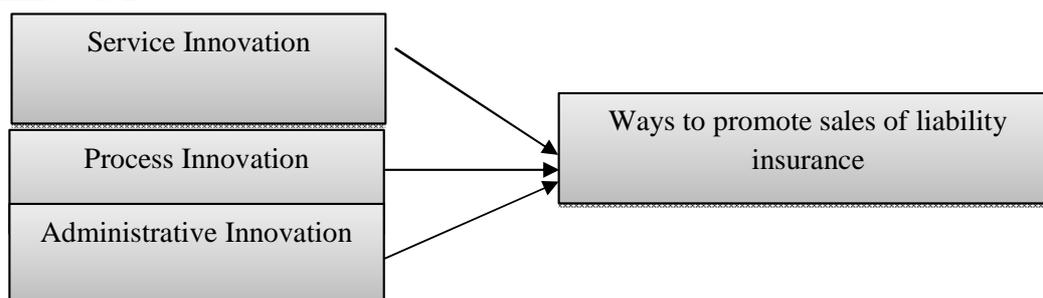
Innovation

Figure 1. Conceptual model of research

Research method, study population and sample

Data were collected using library method and reference to electronic documents and information. This is correlational in terms of research strategy. Questionnaire was used as filed method in this research. From purpose viewpoint, this research is applied, and from research method, descriptive information and data collection viewpoint, it is among the survey research. The statistical population of the study consisted of all Dana Insurance experts in Tehran. Based on the total number of experts, 127 individuals were selected as the statistical sample using Morgan table, and 127 questionnaires were distributed among them.

Data collection tools

The data collecting tool was questionnaire in this research. The required data were obtained collecting 127 questionnaires completed by Dana Insurance experts in Tehran. In this research, innovation inventory was designed based on a research by Hamidzadeh et al. (2014), and inventory of effective ways to increase the sale of liability insurance was developed using a research by VadieiNoghabi et al. (2015). To measure variables in order to test the research hypotheses, items of the questionnaire were represented as shown in Table 1:

Table 1.Items of the questionnaire to measure variables

Variables	Items
Service innovation	1-7
Process innovation	8-13
Administrative innovation	14-17
Effective ways to increase the sale of liability insurance	18-30

Reliability of the questionnaire was achieved based on Cronbach's alpha coefficient. According to Table 2, The Cronbach's alpha coefficient is 0.78, which is above 0.7 indicating the reliability of the questionnaire.

Table 2.Cronbach's alpha coefficient

Scale	Cronbach's alpha coefficient
Service innovation	0.71
Process innovation	0.80
Administrative innovation	0.83
Effective ways to increase the sale of liability insurance	0.75
Total	0.78

Data analysis and hypotheses test

To analyze the statistical data and examine the research questions, SPSS software was used to measure descriptive statistics and inferential tests proportional to the type of data and variables. In this research, Kolmogorov-Smirnov test was first used to investigate normal distribution of variables, and Spearman's correlation test was then used to examine the significant relationship among variables.

Table 3. Results obtained from test measuring data normality

Variable	Kolmogorov statistic value	Significance level
Service innovation	0.157	0.000
Process innovation	0.143	0.000
Administrative innovation	0.166	0.000
Effective ways to increase the sale of liability insurance	0.173	0.000

The results shown on Table 3 indicate that data distribution is not normal. Since the variables of this research were recognized abnormal, to investigate the research hypotheses, Spearman's correlation coefficient, which is a nonparametric technique, was used.

The results obtained from the analysis of the first hypothesis:

The first hypothesis states that service innovation has a significant effect on the increase in sales of liability insurance. Table 4 shows the results obtained from the analysis of the first hypothesis using Spearman test.

Table 4. The effect of service innovation on the increase in sales of liability insurance

Hypothesis	Spearman's correlation coefficient	Significance level	Confidence level	Test result
First	0.311	0.000	99%	Accepted

As shown in Table 4, there is a significant and positive relationship between service innovation and increase in sales of liability insurance (Spearman's correlation coefficient: 0.311, Significance level: 0.000), and as seen in Table 4, since sig=0.000, and this value is less than α=1%, the first hypothesis is confirmed, and it can be said that service innovation has a significant effect on the increase in sales of liability insurance. Since Spearman's correlation coefficient (0.311) is positive, this relationship is positive.

The results obtained from the analysis of the second hypothesis:

The second hypothesis states that process innovation has a significant effect on the increase in sales of liability insurance. Table 5 shows the results obtained from the analysis of the second hypothesis using Spearman test.

Table 5. The effect of process innovation on the increase in sales of liability insurance

Hypothesis	Spearman's correlation coefficient	Significance level	Confidence level	Test result
Second	0.275	0.000	99%	Accepted

As shown in Table 5, there is a significant and positive relationship between process innovation and increase in sales of liability insurance (Spearman's correlation coefficient: 0.275, Significance level: 0.000), and as seen in Table 5, since sig=0.000, and this value is less than α=1%, thesecond hypothesis is confirmed, and it can be said that process innovation has a significant effect on the increase in sales of liability insurance. Since Spearman's correlation coefficient (0.275) is positive, this relationship is positive.

The results obtained from the analysis of the third hypothesis:

The third hypothesis states that administrative innovation has a significant effect on the increase in sales of liability insurance. Table 6 shows the results obtained from the analysis of the third hypothesis using Spearman test.

Table 6. The effect of administrative innovation on the increase in sales of liability insurance

Hypothesis	Spearman's correlation coefficient	Significance level	Confidence level	Test result
Third	0.435	0.000	99%	Accepted

As shown in Table 6, there is a significant and positive relationship between administrative innovation and increase in sales of liability insurance (Spearman's correlation coefficient: 0.435, Significance level: 0.000), and as seen in Table 6, since sig=0.000, and this value is less than α=1%, thethird hypothesis is confirmed, and it can be said that administrative innovation has a significant effect on the increase in sales of liability insurance. Since Spearman's correlation coefficient (0.435) is positive, this relationship is positive.

CONCLUSION & SUGGESTIONS

Based on the results obtained from the analysis of research hypotheses, it can be stated that service innovation has a significant effect on the increase in sales of liability insurance. The results also indicate that service innovation has a positive and significant effect on the sale of liability insurance. In other words, the higher the service innovation, the more the sales of liability insurance. These factors indicate that the first hypothesis of the research is accepted. Also, it can be said that process innovation has a significant effect on the increase in sales of liability insurance. The results also indicate that process innovation has a positive and significant effect on the sale of liability insurance. In other words, the higher the process innovation, the more the sales of liability insurance. These factors indicate that the second hypothesis of the research is accepted. Also, administrative innovation has a significant effect on the increase in sales of liability insurance. The results indicate that administrative innovation has a positive and significant effect on the sale of liability insurance. In other words, the higher the administrative innovation, the more the sales of liability insurance. These factors indicate that the third hypothesis of the research is accepted. Based on the research results, it is suggested that all public and private insurance authorities and managers should help enhancement of performance and increase in the sales of liability insurance by investing in the components of innovation in the organization. It is also recommended to researchers to investigate the impact of innovation on the sale of various types of insurance and services provided by insurance.

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