

Electronic Insurance and its Success Indicators (Case Study of Insurance Companies in Birjand)

Zahra Rajaei^{1,*}, Mahdi Saghafi²

¹Faculty member, Department of Management, Payame Noor University, Iran

²Faculty member, Department of Accounting, Payame Noor University, Iran

Received 06 September 2017 Accepted 01 December 2017

ABSTRACT

Electronic insurance as one of the most important elements of electronic trade is an industrial have been concerned highly, and have had advantages such as disappearing of time and place limitation, decrease of insurance rate, increase of sales volume, easy access to the information, and decrease of transactions. According to this, the present study aims to investigate the effect of electronic insurance on the Birjand citizenship satisfaction. The statistical society includes all staffs and customers of insurance companies of Dana, Asia, Iran and Armed Forces in Birjand that use electronic insurance services. 100 persons of the statistical sample have been gained on the basis of Morgan table. The questionnaire has been randomly-access distributed among 50 staffs and 50 customers who were presented in the under-studied insurance companies. The questionnaire of the components of the strategic beneficiaries' approach in the organizational effectiveness model was used for collecting the information. The research results show that in 95% confidence level of the success dimension of electronic insurance has a positive and meaningful effect on the satisfaction degree of using the insurance in the view of insurance company staffs. Also, the success of extending the electronic insurance, the success of using the electronic insurance, benefiting from the electronic insurance advantages, and satisfaction of electronic insurance are the most important indexes of the electronic insurance of Birjand in the view of insurance industry staffs. On the other side, the success dimension of electronic insurance has a positive and meaningful effect on the satisfaction degree of using the electronic insurance in the view of the customers, and finally, one can say that the customers' satisfaction of electronic insurance in Birjand is high and desirable.

Keywords: *Electronic Insurance, Strategy, Satisfaction, Customer Orientation*

Introduction

We live in the age electronic phenomena such as electronic trading, electronic banking, electronic government, and electronic insurance.

By benefiting from information technology in the insurance industry and appearance of electronic insurances, the geographical and temporal limitation have been eliminated and the information systems

of the insurance industry have been evolved extensively. In this research we are proceed to study the effect of electronic insurance success on Birjand insurance industry.

Electronic insurance is of the important phenomena resulting from using information and communications technology and also information management, such as on one hand, it has increased the relation level with the insurer, and on the other hand, extended the virtual trading domain of some types of insurance policies (Amirkhani & Mottaghi Sabet, 2010).

Insurance industry is one of the most important service-providing sectors regarding to its basic function in the society and macroeconomics. Technology-based and modern economy encounters risks more than any time. Individuals, also, need the insurance to protect themselves against these individual risks. Insurance companies play important role as investors and stockholders (Bromideh & Aarabi, 2006). There are two reasons for forcing the insurance companies to extend their online activities. First, the online activities lead to income increase and cost decrease, paperwork elimination, and decrease of customers contact with the company staffs. Second, online access results in increase of the perceived services by the customer and will increases his/her loyalty (Sahamiyan, 2007). Achieving a proper competitive position is also another most important purposes of the insurance companies in insurance industry that reveals the necessity of implementing the electronic insurance. The main purpose of the present research is to study the effect of the electronic insurance on Birjand citizen's satisfaction. The components of the strategic beneficiaries' approach in the organizational effectiveness model have been considered as the base for this aim. And, the proper indexes for evaluating the electronic insurance effect on the success of Birjand insurance industry have been studied by two questionnaires and by the use of Likert scale.

The research theoretical basics

In today competitive environment, modern information and communication technologies can play a significant role in increasing the efficiency of the business activities. In fact, internet technologies such as electronic business in every sector of industries increase the efficiency through facilitating the business and automating the trade phases (Amirkhani & Mottaghi Sabet, 2010).

Studies on extending the electronic insurance show significant success in some cases, but the high failure rate of electronic insurance projects and their high need to much more investment have forced the insurance companies concentrate perfectly on implementing such projects and also spend more for them to be sure about these projects success (Burdev and Dias, 2004). Just as many other industries in Iran, insurance industry has considered the internet more as a communicative and advertising channel. Although the internet applications are more than this, and regarding the fast development of the information technology infrastructures one can make noticeable opportunities in Iran (Bromide & Amani, 2004). But irrefutable fact in developing the usage of information technology is that in spite of the industry investment in this technology, development and its various applications prevalence in the industry proceed slowly. The main reason of this problem is the low level of electronic preparedness (Aslani Mahmoodi, 2003). The insurance industry managers and policymakers can make effective decisions for benefiting from the electronic insurance by knowing the factors of electronic preparedness. Applying the electronic insurance in the insurance industry is in its early stages. For traditional Iranian insurers, the need of being matched with new electronic business opportunities is not only along with direct investment in new information and communication technologies, but also accompanies with the indirect expenditures of changing the present business model (Shahidi, 2003).

So it's necessary to resolve the challenges of implementing the electronic insurance that are as below:

1. civil and legal issues (Ghasemzade, 2003),

2. financial issues (Kameli, 2004),
3. insurance specialized software,
4. interactions among different organizations and insurance companies (Nahavandiyan & Haghghatkhah, 2003),
5. technical issues such as integrating the insurance operation (Aslani Mahmoodi, 2003), changing the technology and system maintenance (Aslani Mahmoodi, 2003), management and planning, problem of selling complicated insurance products (Nasiriyar,2006), and culturalization (Nasiriyar,2006).

Meshkani Farahani (2007) in their research point to the risks of using the electronic insurance and also to this fact that developing the electronic insurance needs fundamental review of the rules related of the supervision on the insurance market.

Bakhtiyari and Razavizade (2011) in their research, "Feasibility Study of Electronic Insurance: case study of Iran insurance", mentioned some obstacles of the electronic insurance such as the shortage of developed and powerful software facilities, limitation of communicative lines and their low speed in transmitting the electronic data, lack of stable and secure communication and connection that should be provided by Ministry of Information and Communication Technology for the insurance industry to ensure the reception of sent information.

The research questions

1. What are the most important indexes of the electronic insurance success in Birjand insurance industry in the view of the staffs?
2. Do the dimensions of the electronic insurance have a meaningful effect on the satisfaction degree of electronic insurance in the view of Birjand insurance industry staffs?
3. Do the dimensions of the electronic insurance have a meaningful effect on the satisfaction degree of electronic insurance in the view of Birjand insurance industry customers?
4. What is the satisfaction level of Birjand electronic insurance?

Methodology

The research statistical society includes managers and operations analysts of the central offices of Birjand insurance companies who are qualified to participate in this research regarding to their education and work experiences, and also consists of the customers who are benefiting from the electronic insurance services in these companies and have being surveyed for their satisfaction degree.

The present research is applied and survey-descriptive. By random-access sampling, the research sample has been selected randomly among the qualified staffs of the insurance central offices and the customers referring to the insurance companies and using the electronic insurance services. Finally, 50 managers and operations-analysts of the insurance companies' central offices, who are qualified to participate in this research regarding to their education and work experiences, and 50 customers of the insurance companies were selected for the research sample. First by extensive library studies and consulting with experts the questions were designed, and by postulating the components of the strategic beneficiaries' approach in the organizational effectiveness model and proper indexes for evaluating the effect of electronic insurance on the insurance industry success, two questionnaires were distributed. Likert scale was used for designing the options.

General reliability of the managers' questionnaire that was computed by Cronbach alpha was 0.826, and of the customers was 0.731. So, each scale items have high inter-correlation. The answering rate of the questionnaire was 88.2.

Findings

50 staffs of the insurance company participated in this study consist of 58% Iran insurance staffs, 20% Dana insurance staffs, 12% Armed Forces staffs, and 10% Asia insurance staffs. 94% of the respondents have BA degree, 4% MA and 2% Associate degree The study field of 26% of the insurance company staffs was Economy, 22% Management, 18% Accounting, 14% Computer Science, and 4% Law. Also, 50% of the respondents were the operators, 28% representative directors, and 22% the insurance experts. The work experience of 40% respondents was 5-10 years, 32% less than 5 years, 14% 10-15 years, and 6% 15-20 years.

Inferential statistics

The questions designed by the proper statistical tests and the statistical analysis by software SPSS1 were studied as follows:

First question: What are the most important indexes of the electronic insurance success in Birjand insurance industry in the view of the staffs?

By the use of Friedman test, first, indexes of the electronic insurance success in Birjand industry compared and ranked according to different aspects, and the results presented in table 1.

Table1. Ranking the success indexes of electronic insurance on the insurance industry

Row	Index	Rank	Chi-squared test	p-Value
1	development and implementation success of electronic insurance	1	18.89	0.000
2	usage and implementation success of electronic insurance	3		
3	benefiting from electronic insurance advantages	2		
4	satisfaction of electronic insurance	4		

As you observe the table1, p-value amount of Chi-squared test is almost equals to 0.000 that is less than the error level of 0.05, so zero hypothesis is rejected. On the other hand, the different aspects of importance degree of the electronic insurance success indexes on the insurance industry have not the same preference in the view of the insurance company staffs.

Second question: Do the dimensions of the electronic insurance have a meaningful effect on the satisfaction degree of electronic insurance in the view of Birjand insurance industry staffs?

First, we compute Pierson correlation between the success dimension and satisfaction degree of electronic insurance, and then study the variance analysis, and finally, compute the regression effect coefficients of the independent variable on the dependent variable. The related results have been presented in the below table.

Table2. Pierson correlation

Pierson correlation	Reducing the costs	Success of insurance development	Success of usage and implementation of the insurance	Benefiting from the insurance advantages
Satisfaction of using the electronic insurance	Correlation amount	.084	.288*	.642**
	p-value	.563	.045	.000

For studying the success dimensions' effect of the electronic insurance on the satisfaction degree of the insurance, regression analysis was used. The satisfaction degree of the electronic insurance as the dependent variable, and the success dimension (success of the electronic insurance development, success of using and implementing the electronic insurance and benefiting from the electronic insurance advantages) as the independent variable were gained.

Table3. Variance analysis of the insurance success dimensions on the users' satisfaction degree in the view of the staffs

Model	Sum square	R	Mean square	Freedom degree	F	Sig. level
Regression	23.068		7.68	3		
Remainders	21.71	.72	.47	46	15.94	0.000
Total	44.77			49		

Regarding to the above table, p-value of the model is 0.000 that is less than the error level of 0.05, so zero hypothesis is rejected. Thus, in liner regression model there is a meaningfulness in the confidence level of 95% between the electronic insurance success dimensions and the satisfaction degree of using the insurance in the view of the insurance company staffs. Also, the correlation coefficient amount (R) of the model is 0.72.

Table 4. Regression coefficients of the model of the electronic insurance success dimensions on the satisfaction degree of using the insurance.

Model	Standard coefficients	Non-standard coefficients		T	Sig.
	B	Standard deviation	B		
Stable	-	.44	.22	.50	.616
Success of insurance development	.39	.11	.32	3.01	.004
Using and implementing the insurance	.62	.18	.64	3.95	.000
Benefiting from the insurance advantages	.85	.19	.87	4.46	.000

Regarding to the table4, p-value of the independent variables is less than 0.05 that is meaningful statistically. Thus, the success of insurance development, success of using and implementing the electronic insurance, benefiting from the electronic insurance have a meaningful effect on the satisfaction degree of the electronic insurance, and the constant amount or y-intercept has a meaningful level more than 0.05. So, regression line equation can be written as below:

$$Y = 0.32x_1 + 0.64x_2 + 0.87x_3$$

In the above regression model, the success of insurance development is (x_1), the success of using and implementing the insurance (x_2), benefiting from the electronic insurance (x_3) and the satisfaction degree of electronic insurance (Y). The success dimensions' variables have positive effect on the satisfaction degree of using the electronic insurance. The research hypothesis is confirmed.

Third question: Do the dimensions of the electronic insurance have a meaningful effect on the satisfaction degree of electronic insurance in the view of Birjand insurance industry customers?

First, we compute Pierson correlation between the success dimensions and the satisfaction degree of the electronic insurance, then study the variance analysis, and finally, regression effect coefficients of the independent variable on the dependent variable are computed. The results have been shown in table 5.

Table 5. Pierson correlation

Pierson correlation	Reducing the costs	Success of using and implementing the insurance	Success of the insurance development	Optimizing the operation	
Satisfaction of using the electronic insurance	Correlation amount	.084	-0.23	-0.117	.174
	p-value	.563	.108	.420	.227

For studying the effect of the electronic insurance success dimensions on the satisfaction of using the electronic insurance in the view of the customers, regression analysis has been used. The satisfaction degree of using the electronic insurance was the dependent variable, and the success dimensions (success of the electronic insurance development, success of using and implementing the electronic insurance, reducing the costs, and optimizing the operation) were the independent variable. Table 6 shows the results.

Table 6. Variance analysis of the insurance success dimensions on the users' satisfaction degree in the view of the customers

Model	Sum square	R	Mean square	Freedom degree	F	Sig. level
Regression	1.16	.36	.29	4	1.72	0.062
Remainders	7.55		.17	45		
Total	8.71			49		

According to the above table, p-value of the model is 0.162 that is more than the error level of 0.05, so the test zero hypothesis is accepted. On the other hand, in 95% confidence level of the model, there is a meaningful liner regression between the success dimensions of the electronic insurance and the satisfaction degree of using the electronic insurance in the view of the customers.

Forth question: What is the satisfaction level of Birjand electronic insurance?

For studying the customers' satisfaction degree of the electronic insurance, single-group t-test was used. The results have been shown in table 7.

Table7. Single-group t-test of the customers' satisfaction degree of the electronic insurance

Test value=3						
Component	MD	p-value	Degree of freedom	T	Confidence dulance 95%	
					Upper bound	lower bound
Customers satisfaction	.38	.000	49	6.44	.26	.50

Regarding to table 7, p-value, the customers' satisfaction variable, almost is 0.000 that is less than error level of 0.05, so zero hypothesis is rejected. With 95% confidence, there is a meaningful difference between the real and assumed mean (3) of the satisfaction of the electronic insurance customers. Regarding to this fact that the t-static amount is positive, one can say that the satisfaction of the electronic insurance customers is in high and desirable level that is more than the average level.

Conclusion and the research applications

Testing the research hypothesis confirms that the electronic insurance has an effect on the customers' satisfaction, and thus on promoting the services quality. The test results are compatible with the results of performed researches by Sehhat and Ghobadi (2011), Mazlumi et.al. (2010), and Kazemi et al. (2009). This means that successful establishment of the electronic business needs a sect of factors and conditions.

Much as the best company website is designed with exchangeability, if the customers have no access to the network, it's obvious that the electronic business can't be effective (Mazlumi, Emami & Arabi, 2010). Website access has a direct effect on the website income, customers' satisfaction, their loyalty to the company, and finally creating a positive imagery in the customers' minds (Sehhat and Ghobadi, 2011). One of the basic factors of the electronic design success is the specialist human forces in information and communication technology. Thus, the necessary preparations should be provided for instructing them and promoting their knowledge (Sehhat and Ghobadi, 2011). Information technology experts, the staffs interest and motives for using new methods, and holding the educational courses for the staffs () are necessary for implementing the electronic insurance (Kazemi, Fayyazi & Mirzade. 2009). All members of the insurance industry, from chief administrative officers to operating level staffs, should receive the necessary instructions to be known as information experts, and their experience and skills be used for implementing the information technology (Amirkhani & Mottaghi Sabet, 2010). Also, inaccuracy in rendering the services, lack of effective methods for easy and inexpensive use alongside the traditional methods, lack of advertisement, and incapability of the institutes in motivating the customers for using the electronic insurance are the most important challenges of the development route (Kazemi et.al. 2009). Ameli (2003) research result is compatible with our research's too which show that personal and media extensive advertisements are one of the effective factors on purchasing the electronic insurance. So, regarding to the research results, the below most solutions are proposed:

- preparing the persuasive programs with types of instructional tools and techniques for the customers for using the electronic insurance;
- the insurance industry efficient participation in the national electronic meetings such as supreme information technology council, supreme informatics council, supreme informative council and other related authorities to be successful in developing, using and implementing the electronic insurance;
- holding the instructional workshops and holding in common conferences on management issues of the information technology for the staffs and customers;
- holding consultation meetings for different sectors managers for more coordination among the insurance sectors;
- preparing the consistent programs for using the information technology in the insurance sectors, and establishing common information bank in the insurance sectors;
- re-engineering the basic phases especially in the insurance operative field for succeeding in developing, using and implementing the electronic insurance;
- obligating the companies to documenting the basic business phases based on the acceptable methodologies;
- correcting the existing software and preventing the island software without regarding the data exchange and consistency in whole insurance industry;
- simply informing and instructing without referring to the special and obscure issues for the general staffs.

References

- Ameli, A. (2003). Informative role of advertisement in correctly recognizing civil liability insurance for insurers (especially in optional sector). *Economic Research*, 9, 90-161.
- Amirkhani, A. & Mottaghi Sabet, M. (2010). Studying the obstacles of developing the electronic insurances in Asia Insurance Company. *Insurance Industry Quarterly*, 157, 1-177.
- Aslani Mahmoodi, A. (2003). Strategy of information systems in Iranian insurance companies. *Proceedings of Electronic Business Conference*. Bazargani Publications.

- Bakhtiyari, S.M., & Razavizade, S.H. (2011). Feasibility study of electronic insurance: case study of Iran Insurance. *First International Conference and Specialized Exhibition of Electronic Insurance*.
- Bromideh, A.A. & Aarabi, N. (2006). The impact of e-commerce on the Iranian insurance companies, MBA Thesis In E-Commerce & Industrial Marketing Management, Lule & University of Technology, Sweden.
- Bromideh, A.A. & Amani, M.M. (2004). 'The necessity of ICT and e-commerce applications in the Iranian insurance industry: an unbundling proposal', Presented in the *1st Conference on Insurance & ICT*, Bimeh Markazi Iran (Central Insurance of Iran), Iran.
- Burdev, R. & Dias, D. (2004), 'On e-Insurance Strategy', the E-Insurance Company, n. 28, Goldman Sachs.
- Ghasemzade, F. (2003). Legal challenges of implementing the electronic insurance in Iran. *Proceedings of the Electronic Business Conference*, Bazargani Publications.
- Kameli, A. (2004). Marketing and selling the insurance in the electronic business. *Asia Specialized Quarterly*, 32, 28-33.
- Kazemi, M., Fayyazi, M. & Mirzade, M. (2008). Investigating the obstacle of the optimal use of information technology in Iran insurance industry. *Knowledge and Development*, 73, 23-91.
- Mazlumin, N., Emami, K. & Arabi, N. (2010). Electronic readiness measuring of automobile insurers. Trading researches Publications, 2, 159.
- Meshkani Farahani, S. (2007). Electronic Insurances. *Asia Quarterly*, 44 and 45, 22-25.
- Nahavandian, M. & Haghightakhah, A. H. (2003). "Development of e-commerce in Iran", Tehran: Commercial Research Publications, Vol. 2, p. 159.
- Nasiriyar, M. (2006). Recognizing the challenges of using information technology. *Tadbir Monthly*, 167.
- Sahamiyan, Javad (2007). Challenges and solutions of developing information technology in Iran Insurance Industry. *Conference of Managing the Challenges of the Insurance Industry*.
- Sehhat, S. & Ghobadi, L. (2011). Describing the factors related to accepting the electronic insurance. *Insurance World News*, 4, 18-162.
- Shahidi, M. (2003). Electronic business and Insurance. *Insurance World News*, 62, 278-319.