

# Investigating the Barriers of Accepting Electronic Insurance in Insurance Industry

(Case Study: Iran Insurance Companies in Bandar Abbas)

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**Abstract:** This research has investigated the barriers and strategies of implementing electronic insurance in insurance industry with case study of Iran insurance Companies using three-dimensional model of Mirzaei Ahrnjany (behavioral factors, structural and contextual). In terms of goal this research is functional and in terms of method of collecting data is survey one. Statistical population of this research is 162 bosses of different sections of Iran insurance in Bandar Abbas. The sample was selected through class random method and with 114 volumes. Then based on this, a questionnaire of 26 questions was set and distributed that research variables were tested and for analyzing data, bi-variable linear regression was used for evaluating the effectiveness of factors. Findings showed that only regression equation was related to significant factor variable. Behavior factor variable explained 4.2 percent of changes in lack of accepting electronic insurance. Regression coefficient ( $B=0.207$ ) identified the share of independent variable in predicting the changes of dependent variable in another word, for one single unit increase in behavioral factor, 20.7 percent was added to the lack of accepting electronic insurance.

**Keywords:** Insurance, Electronic Insurance, Information Technology, Electronic Business.

## Introduction

The occurrence of wide developments in past 50 years in the field of computer and communications has caused main changes in various areas of human life. Human has always used technology and the result of human's life has been always full of numerous technologies that all of them have been discussed in order to facilitate human life (Aadel & Momeni, 2001). By the occurrence of information technology in organizations, their business and strategies have been affected by capabilities and increasing functions of information technology that the rate of this effect is different based on the characteristics of each organization (Mirkhani & Motaghi, 2010). As the competition is increasing in international level, some organizations invest a huge volume of their sources in information technology to be able to gain competitive advantage. Performing technology projects requires a set process not to fail as a result, this case requires correct and appropriate assessment of methods and techniques appropriate with these projects (Ahonen & Jarvinen, 2004).

Information technology enables managers to communicate with their organization, environment and each other more and better. More participation in decision making, increase of decision making rate, increase of identifying problems, decreasing the height of information pyramid, improvement of coordination and increase of expert staff are only some of effects that information technology and informative systems have on some organizations.

Electronic insurance is one of important phenomenon obtained from using information and communication technology as well as information management that has had a deep development in the way of selling insurance and getting recompense so that it has increased the level of communication with insurer and on one hand and on the other hand has widen the range of virtual selling and buying of some kinds of insurance (Karimi, 2004). In most of deprived areas of our country there are some banks (since banks have the main and basic role in electronic business) that have their own particular customers and don't need internet or prior technology or credit card for doing banking affairs. According to obtained reports, the residents of these areas prefer to do business in the traditional way and with money. In this research we want to determine what barriers are there for accepting electronic insurance in insurance industry?

### **Research history**

Hasangholipour et al (2012) showed in a study namely identifying and prioritizing the barriers of establishing accounting systems of human resources of organizations, that there are many barriers in establishment of these systems that current research goal is identifying and prioritizing these barriers using hierarchy analysis process. Through collecting theories of experts, 7 factors were identified as the barriers of establishment that among them the complexity of measuring pattern and the difficulty of collecting data were the most important ones.

Sarafizadeh (2007) showed in a study namely investigating the effect of using office automation on the efficiency of human resources that using office automation have direct effect on some factors such as efficiency, effectiveness and productivity in the field of human resources but the rate of these effects have not been significant. Kazemi and Fayazi (2008) showed in a study namely investigating the barriers and strategies of implementing electronic trade in insurance industry (electronic ones) in terms of culture and organizational behavior (case study: Asia Insurance Company) that each one of behavioral, field, structural and natural factors is the barrier for implementing and developing electronic trade in insurance industry such as Asia insurance Company. Findings show that behavioral and natural factors have the highest effect on lack of development and implementing electronic business.

Ahonen and Salonen (2004) have assessed the way of IT effect on productivity growth of industrial activities. The results showed that IT affects productivity growth positively but many other developing countries this effect isn't significant.

### **Defining concepts**

**Insurance:** it is an action because of that one party (insurer) commits that for receiving cash (premium) from other side (policyholder) to compensate the damage in case of a bad event for the thing which is insured or pay predetermined money.

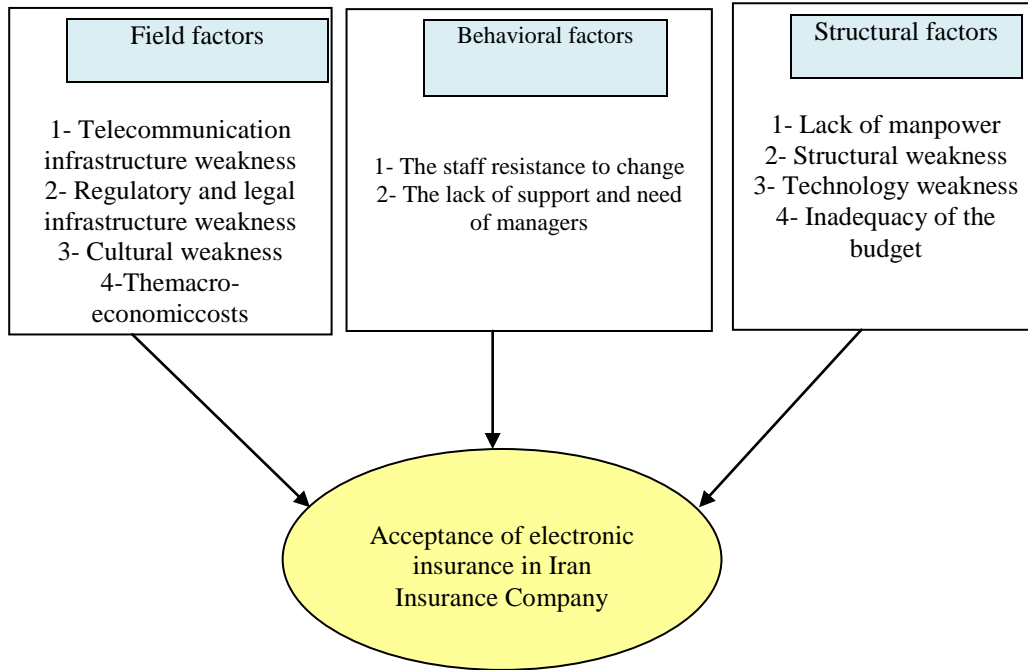
**Electronic insurance:** it generally means the function of internet and technology in producing and distributing insurance services and in particular concept, it can be considered as providing an insurance cover whose request, suggestion, negotiation and contract will be set online. This particular definition is considered in this research.

**Information technology:** information technology means methods through them, organization collect data, save, manage, use and transmit information and causes the decrease of costs or value and quality of products and services.

**Electronic business:** electronic insurance includes the process of purchase, sale, transmitting or product, services and information exchanging through computer and internet channels.

### **Research model**

The variables of research have been divided into two categories of independent and dependent (accepting electronic insurance as dependent variable and structural, behavioral and field barriers have been considered as independent variables).



**Figure 1.** Research model.

### Research hypotheses

**Hypothesis 1-** field factor plays a role in lack of accepting electronic insurance in insurance industry.

**Hypothesis 2-** there isn't linear relationship between behavioral factor plays and lack of accepting electronic insurance in insurance industry.

**Hypothesis 3-** structural factor plays a role in lack of accepting electronic insurance in insurance industry.

### Materials and Methods

In terms of goal, this research is fundamental and to perform that, library, field and survey methods have been used. Statistical population is all managers, bosses and elites of IT and insurance experts in branches of 162 representations in Hormozgan that a sample of 114 people has been selected among a finite population using sampling formula of Cochran. It is noticeable that used sampling method in this research is simple class sampling method. For collecting data questionnaire was used. For the variable of structural factors (7 items), field factors (11 items), behavioral factors (4 items and acceptance (4 items) were considered in form of 5 degrees Likert scale from absolutely agree to absolutely disagree. The content validity of this questionnaire was confirmed by guide professors and managers of technical sections in Iran insurance as well as elite experts of IT. Cronbach's alpha has also been used for determining the reliability. For a sample of 30, the rate of obtained Cronbach's was estimated as 77.7 percent. If this value is more than 0.7 it can be said that tool is reliable. For analyzing information, bi-variable linear regression inferential statistics have been used through SPSS software.

### Results

**Hypothesis 1-** field factor plays a role in lack of accepting electronic insurance in insurance industry. According to the results of table 1, confidence level of independent variable coefficient is more than 5 percent (0.618) and this represents that whole model has not been signified and as result zero hypothesis is confirmed and 1 hypothesis is rejected. As result there is no significant relationship between field factors and lack of accepting electronic insurances in confidence level of 95percent.

**Table 1.** The results of bi-variable regression model between field factors and lack of accepting electronic insurances in industry.

The independent variable	R	R <sup>2.adj</sup>	B	T	F	Sig
Field factors	0.047	0.007	0.036	0.501	0.251	0.618

**Hypothesis 2-** there isn't linear relationship between behavioral factor plays and lack of accepting electronic insurance in insurance industry. According to table 2, obtained value of F (5.982) which is significant in smaller error level of 0.05 shows that regression model is significant. The value of regression coefficient (R=0.225) shows that behavioral factor has weak and positive relationship with lack of accepting electronic insurances, modified determination coefficient (R<sup>2.adj</sup>=0.042) shows that the variable of behavioral factor explains 4.2 percent of changes in lack of accepting electronic insurance. Regression coefficient (B=0.207) also identifies the share of independent variable in predicting the changes of dependent variable. In another word for ne single increase of behavioral factor, 20.7 percent will be added to lack of accepting electronic insurances and also t statistic and smaller error level of 0.01 for that shows mentioned variable has had significant statistical effect in explaining the changes of lack of accepting electronic insurances variable.

**Table 2.** The results of bi-variable regression model between behavioral factors and lack of accepting electronic insurances in industry.

The independent variable	R	R <sup>2.adj</sup>	B	T	F	Sig
Behavioral factors	0.225	0.042	0.207	2.446	5.982	0.016

**Hypothesis 3-** structural factor plays a role in lack of accepting electronic insurance in insurance industry. According to the results of table 3, confidence level of independent variable coefficient is more than 5 percent (0.348) and this represents that whole model has not been signified and as result zero hypothesis is confirmed and 1 hypothesis is rejected. As result there is no significant relationship between structural factors and lack of accepting electronic insurances in confidence level of 95percent.

**Table 3.** The results of bi-variable regression model between structural factors and lack of accepting electronic insurances in industry.

The independent variable	R	R <sup>2.adj</sup>	B	T	F	Sig
Structural factors	0.089	-0.001	0.075	0.942	0.888	0.348

### Conclusion

A summary of findings are proposed here: confidence level of independent variable coefficient is more than 5 percent (0.618) and this represents that whole model has not been signified and as result zero hypothesis is confirmed and 1 hypothesis is rejected. As result there is no significant relationship between field factors and lack of accepting electronic insurances in confidence level of 95percent. This finding isn't aligned with Mirkhani and Motaghi research (2010) and rejects it.

Obtained value of F (5.982) which is significant in smaller error level of 0.05 shows that regression model is significant. The value of regression coefficient (R=0.225) shows that behavioral factor has weak and positive relationship with lack of accepting electronic insurances, modified determination coefficient (R<sup>2.adj</sup>=0.042) shows that the variable of behavioral factor explains 4.2 percent of changes in lack of accepting electronic insurance. Regression coefficient (B=0.207) also identifies the share of independent variable in predicting the changes of dependent variable. In another word for ne single increase of behavioral factor, 20.7 percent will be added to lack of accepting electronic insurances and also t statistic and smaller error level of 0.01 for that shows mentioned variable has had significant statistical effect in explaining the changes of lack of accepting electronic insurances variable. This finding is aligned with Mirkhani and Motaghi research (2010) and confirms it. Confidence level of independent variable coefficient is more than 5 percent (0.348) and this represents that whole model has not been signified and as result zero hypothesis is confirmed and 1 hypothesis is rejected. As result there is no significant relationship between structural factors and lack of accepting electronic insurances in confidence level of 95percent. This finding isn't aligned with Mirkhani and Motaghi research (2010) and rejects it.

## Recommendations

Considering performed researches as well as considering obtained results of literature and research findings below recommendations are proposed in order to eliminate mentioned barriers:

***In field aspect (environment):*** using performed researches, the company is recommended to create and develop appropriate communications infrastructure in order to establish electronic insurance in the country cooperating related organizations such as communications as well as doing necessary actions about eliminating the concerns of policyholders and customers due to increasing trust between insurer and policyholder for electronic exchange of related data. This can be operational through providing reliable legal and security infrastructures and with required executive guarantees of electronic insurances such as the law of digital signature and prosecuting internet violations by related authorities. Public media and institutions' planning in order to increase the level of people awareness from the benefits of electronic business for doing trade affairs through developing related educational programs and necessary acculturation for executors as well as customers for accepting and using new methods will be useful actions due to this.

***In behavioral aspect:*** according to obtained results from literature and analyzing research, effort for increasing awareness of insurance companies managers toward electronic insurance and the trend of electronic activity of other foreign insurance countries, the reduction of staff resistance against changing through various ways such as education, informing and other encouraging actions in economic, legal, technical and above all cultural fields as practical strategies are suggested. Of course for being successful in this area, these kinds of activities as well as organization and users' culture should be coordinated with each other and these cultural activities should also be supported appropriately by key people.

***In structural aspect:*** appropriate infrastructures due to eliminating the field of this factor's occurrence will definitely help insurance companies seriously in taking effective steps for performing electronic insurance so insurance companies due to this can use all of their abilities and using one common language and program do necessary actions in the field of information technology. Due to this the role of Iran central insurance as coordinator and supervisor of insurance companies is very obvious and the new role that central insurance has taken as the executor of electronic insurance mechanisms causes providing preparations of insurance companies entrance rapidly and through revising difficult regulations which are barriers for implementation speeding of IT insurances of electronic world, persuade insurance companies toward innovation and proposing electronic services to citizens so developing policies and required programs in the field of electronic insurance by Iran central insurance and with participation of insurance companies and coordination and cooperation of insurance companies with central one in developing appropriate standards in the field of electronic insurance through forming central council of information technology as an important solution is suggested. Meanwhile improving software and hardware appropriate communicational infrastructures can also help improvement and more speed of its performing. The coordination of insurance companies will also speed up this process toward developing comprehensive, correct and in accordance with their common needs solution. One of important solutions in this field is changing organizational structure according to entering IT systems and finally allocating required financial capital in order to implementing electronic insurance in a space without some conservative approach are specially important.

## Conflict of interest

The authors declare no conflict of interest

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