Representing a Model for Improving Business Intelligence in Electronic Insurance Industry

Mahdi Bazargani

Sama technical and vocational training college ; Islamic Azad University ; Zanjan Branch; Zanjan; Iran

mbzirn@gmail.com

Abstract

This concept of business intelligence was introduced following the inadequacies of information systems for management. Information systems for management have been just developed theoretically, and have never fulfilled the demands of organizations, practically. Business intelligence technic is applied by an optimized pattern in electronic insurance industry which its basis is merging two significant models in this field known as Kano Model and Model of Quality Function Deployment. Kano Model tool is a questionnaire filled by customers which they should answer to the dual positive and negative questions. These answers will lead to understanding quality demands of customers and considering basic demands, practical demands as well as motivational demands.

Key words: Kano model, Model of Quality Function Deployment, electronic insurance, house of quality, business intelligence

1. Introduction

Business intelligence is a …. term which was introduced by Gartner Group and its researchers, Howard Drossner in 1989. This term was proposed in order to express and analyze a collection of concepts and methodologies which by the means of events and the systems based on events, improves the decision making in the business. Applications of business intelligence give life back to the strategy of an organization. They measure the accuracy and success of the company's goals [1], [2].

Business intelligence covers the collecting, process and analysis of a huge amount of data in internal systems and external sources, and this is a possible task, because the business intelligence uses advanced tools of analysis and forecasting to give an opportunity to a company to make quick and appropriate decisions in order to achieve to its organizational goals [2],[3].

This paper studies the business intelligence technic and its benefits in the first section. Then its application in e-insurance industry and the necessity of its usage will be expressed. Finally, a model for optimizing the usage of business intelligence in insurance industry field will be discussed.

2. Advantages of Business Intelligence and the Reasons for the Need for It

Increasing in organization's competitive power is one of the advantages of business intelligence solutions that makes the organization distinguishable. Furthermore, it provides better understanding of customers' demands and management of communicating with them. Besides, it provides the organization to control the positive and negative changes and supervise it appropriately.

In a wide perspective, institutes need using the intelligence for two main goals. First, in order to analyses which help them making better decisions so that they can recognize selling process and provide lookout for customers and important complaints. Second, it helps to foresee customer behavior and market need [4].

3. Related Works

In his paper known as "Operational and real-time Business Intelligence", Daniela Ioana expresses his attitude that operating and optimizing the business intelligence in real-time is the decision-making process by a decrease in delay time [5]. Navid Haeri and Fereshte Jafari in their paper "Applying Business Intelligence in …." stated that …. are the fields which can solve the weak points of business

IJISET - International Journal of Innovative Science, Engineering & Technology, Vol. 1 Issue 5, July 2014.
www.ijiset.com

ISSN 2348 – 7968

intelligence. They tried to provide a model of … to solve the weak points in implementing the business intelligence solutions [6]. Azam Sazvar *et al.* mentioned two models used in this field known as Kano Model and QFD Model in her paper entitled "Representing a Model to Improving Business Intelligence in Marketing of E-Insurance Industry", which it results in this fact that though paying the premium, insurance distribution as well as the process of compensation can occur simultaneously, regularity and technical restrictions in some countries may do not permit to operate in a completely electronic way. In this research, the Kano Model which presents effective basic, motivational and operational necessities in satisfaction with a process, service or production is used in QFD Matrix so that we can ensure most of the needs and critical demands are taken into consideration [7].

4. E-Insurance

The practical field of e-commerce is wider than exchange of goods, services and funds. Moreover, the actual application should be considered as important as the potential application in its definition and explanation of considered policies. One of e-commerce applications is in insurance industry; therefore, "**e-insurance**" is of great importance. E-insurance is one of the industries which is used less in Iran and it needs more using of modern technologies in the field of information due to range of exchanges and recording the information of insurance.

* **Definition:** e-insurance is a substitute for cycling the handy works of insurance in the network. E-insurance cause to more speed and accuracy in more simple processes [8].

5. The Importance of Applying Business Intelligence in Insurance Industry and Its Usage in E-Insurance

After backup decision-making systems and organizational information systems, business intelligence could be considered as a final part of business process management. This industry is improving its work in the different fields: improving quality guarantee, several options for paying premium, an increase in management process, a simple way for reinvention, cutting policies, better management in confronting with danger, decrease the investment and developing the control of better business if the danger rises, and reporting either in terms of operational or financial. [9].

Some of several applications of business intelligence in e-insurance are mentioned in three general case as follows:

Operational and real-time Business Intelligence, Claims and Premium Analysis, Customer Analysis

6. Optimum Model in Applying Business Intelligence in E-Insurance Industry

Our research in the field of applying business intelligence in e-insurance industry is originated from [7] research, which in general state, there is a combined model of Kano Model and Model of Quality Function Deployment (QFD) which is used in applying business intelligence in e-insurance industry. Main tool of Kano Model is questionnaire. In this model, some dual questionnaires consist of two positive and negative questions are given to customers in order to recognize the quality demands of them. In these questionnaires three features are considered: basic necessities, practical necessities, and motivational necessities.

The most appropriate way for collecting necessary information, as mentioned in Kano Model, is using questionnaire, a questionnaire consisting four aspects of business intelligence "Information Technology, Staff, culture and innovation, and organization knowledge". These aspects are stated by Goshal for the first time [10], and are used for making an intelligent system in order to achieve competitive advantage.

The House of Quality is the most general part using in QFD Model. The House of Quality consist the rooms which contain "What" that is desired quality of customers and are connected with "How" which is technology features. As in Fig.1 these rooms consist of six matrixes.
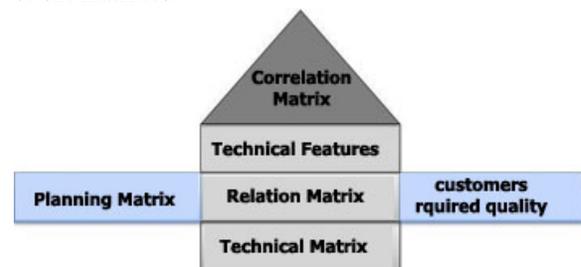

Figure 1: The House of Quality [7], [11]

It is clear that more involvement and the opinion of insurance company's customers will result in an increase and improvement of efficiency and

management of customer relationship. Considering that the insured person as the customer of insurance company, has the most involvement with the kind and the way of services of insurance company and is deal with its kinds in different situations. Owing to this issue, it is better to use this point in poll of customers.

Firstly, in [7], a questionnaire entitled Kano Model is given to customers and customers' opinion about two questions are collected. This information is related to insured customers who are asked while they are registering by business intelligence in order to improve the e-insurance services' performance. However, the considered model in this thesis is providing registered customers with a list showing satisfaction rate of previous insured persons who benefited from several services. In other words, the new insured person should provide by a history of the information related to satisfaction of insured person about insurance services so that they can choose the best service of insurance.

For example, customer A have been used insurance services some time ago, and customer B can choose the best and the most secure choice of the kind of insurance and services by looking the Kano questionnaire and considering the satisfaction percent of customer A.

7. Conclusion

Business intelligence is employed in various fields of science and industry which has been tried to explain briefly and then we focused our research on considered field in insurance industry. E-insurance industry improves information management and decreases the managing and official costs by mechanical business process. Moreover, it decreases the payment of brokers. Finally, a decrease in costs in competitive market leads to a decrease in premium, and allows the customers to buy more insurance which results in more influence and development of insurance in countries. The proposed model for combined model of Kano Model and Model of Quality Function Deployment can be named as the History of Customer Satisfaction. New customers who are not familiar with e-insurance company system and it is their first time to use e-insurance services, can observe the percent of insured customers' satisfaction before they want fill the Kano questionnaire and choose the kind of insurance and their requests from insurance company. After the new customer receives the necessary background

information for answering the questionnaire and requiring their demands from the company by the list of customers' satisfaction list provided by company, he answers Kano questionnaire and expresses their requests in the House of Quality in QFD Model, following Kano Model, he presents his demands to the officials and after checking and analyzing the rooms of House of Quality which has six matrixes, the identity team will fill the House of Quality and will achieve the quality goods by analyzing them. As future research, we will implement the Customer Relationship Management System in order to achieve complete and better management in customers' relationship and improve the quality performance of company by involving the new and previous customers and their opinion. Therefore, we can have a better result either in services or business.

References

[1]   Roglaski, S., (2003), "Business Intelligence: 360° insight: The intelligence challenge", DM Review Magazine, Jan, 2003

[2]   Gupta, S.D., (2003), "A strategy for intelligence", Network magazine,
http://www.networkmagazineindia.com/archives.shtml

[3]   Sabherwal, R & Fernandez, B (2010). Business Intelligence: Practices, Technologies, and Management, John Wiley & Sons Inc, New Jersey.

[4]   Daniela Ioana SANDU IBM Italy, "Operational and Real-Time Business Intelligence", Revista Informatica Economica nr.3(47)/2008

[5]   http://www.ireconomy.ir/fa/page/4 . html

[6]   Jayanthi Ranjan, Saani Khalil, 2008. Building Data Warehouse at Life Insurance Corporation of India: A Case Study, International Journal of Business Innovation and Research - Vol. 2, No.3 pp. 241 – 261

[7]   Ghoshal, S & Kim, S. K (1986). Building effective intelligence systems for competitive advantage, Journal of Sloan Management Review, Vol. 28, No.1, pp. 49–58

[8]   Cindi Howson, "Successful Business Intelligence: Secrets to Making BI a Killer APP", November 26,2007, PP 199-204.

[9]   Li Niu, Jie Lu, Guanguan Zhang, "Cognition-Driven Decision Support for Business Intelligence", April 2012, PP 28-31A. Author 1 and B. Author 2, "Title of the journal paper" IEEE Tran