



The Study of relationship between organizational intelligence and implementation of total quality management system based on ISO 9001:2000 standards

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Abstract: In this paper, relationship between organizational intelligence and implementation of total quality management (TQM) system based on ISO 9001:2000 standard is studied. In the present study, we consider two statistical populations: the first comprised 836 employees and the second included 69 managers working in afzalipoor and ayatollah kashani hospital in kerman. Our first sample was chosen by stratified random sampling method among employees and the second sample comprised all managers. Two main questionnaires were used in this study i.e. Albrecht organizational intelligence and total quality management based on ISO 9001:2000. The first sample was given organizational intelligence questionnaire and the second sample was given TQM questionnaire. 263 organizational intelligence and 69 TQM questionnaires were filled out and sent back. They were used to statistical analysis by spss software. First, the chi-square test is applied to determine independence and then Pearson and kendall correlations were conducted to examine correlations among measures. The results show that there is a positive and significant relation between these two variables.

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1. Introduction

Organizational Intelligence (OI) is the procedural ability of an organization to efficiently process, exchange, measure and reason about management. OI is the combined knowledge and skills of both the tangible and intangible assets that are available for collaborative problem-solving and decision making within the organization. It is based on the combined ability of three organizational assets that combine to make up OI, namely Human Capital (HC), Organizational Capital (OC), and Relational Capital (RC) in this dissertation. Organizational Intelligence Management (OIM) is the management of these organizational assets to understand, integrate and optimize specific organizational activities and, ultimately, to enhance the organization's OI (Eryctine S and Sulevedemirbulak D 2002).

Matsuda (1992) presented Organizational Intelligence is the ability to solve problems in an organization is. Albrecht (2003) said organizational intelligence is the intellectual ability postings per organization to achieve organizational goals. He investigated the power of minds at work.

Wilensky (2000) introduced the organizational intelligence as the process of finding

problems, the Data collection, processing, interpretation and information related to political - Technical requirements in the decision making process.

Cronquist (2004) had said the theory of organizational intelligence aims to assess the intelligence of organizations to recognize their abilities and weaknesses and provide them with necessary solutions prepared based on the obtained results to improve organizational intelligence and finally organizational performance. Such studies help to identify the organizational situations in terms of intelligence i.e. the ability of adapting with environment, perspective, acquiring knowledge, organizational performance and structure, mood, communication and information technology, as well as organizational memory in order to focus on the abilities and plan for removing the weaknesses, and improve efficiency and effectiveness of the organization. Halal (2006) looked at the OI problem and he answered to this question: what is OI? His answer to this question was: Organizational intelligence is an aspect of organizational behavior and plays an important role in organizations. One of the greatest management challenges in the recent

decades is the creation of intelligent institutes, because organizations may like human being fail to use their intelligence.

A theoretical framework for Organizational Intelligence (OI), which encompasses the procedural ability of an organization to efficiently process, support, measure and reason through management issues, is proposed (Glynn M.A 1995). The elements of organizational intelligence are divided into three types of intellectual capital: Human Capital, Organizational Capital, and Relational Capital. The performance of an organizational activity depends on the quality of these capitals that are available within an organization (Howell J. M and Shea C.M 2001). An organization's Human Capital (HC) is the human resources within the organization that can be deployed to acquire and apply its knowledge to perform, respond, or control designated work with available organizational assets. Organizational Capital (OC) refers to the assets available to the organization to support the performance of organizational activities. Relational Capital (RC), which combines human capital and organizational capital to perform, is needed specific organizational activities. In other hand OI embraces both knowledge management (KM) and organizational learning, as it is the application of KM concepts to a business environment, additionally including learning mechanisms, comprehension models and business value network models, such as the balanced scorecard concept. OI's focus includes the creation, fostering and management of organizational competencies (OCs). Organizational intelligence has been defined as the capacity to sense, make sense, and act in flexible, creative, adaptive ways as collaborative problem-solving between people and technical artifacts within and beyond complex enterprises and as how well people put their heads together in a group, team, organization, or community (Davenport T.H and Völpel S.C 2001).

So based on what was presented about the organizational intelligence and the intelligence relationship between the variables, it can be expected that organizational intelligence promotes the organizational excellence, product and service quality. Organizational excellence is a commitment to sustainable development and sustainable growth in order to achieve customer satisfaction and continuous increase in the profitability of an inclusive and supportive environment (Male Cristina and Colurcio Maria 2006). In other words, excellence has been created in order to identify the organizations capability to achieve quality, superior performance and growth of awareness of quality and performance excellence, under a competitive framework.

From among the model of quality, Total Quality Management (TQM) (Spencer B 1994) is a management approach to long-term success through customer satisfaction. Important aspects of TQM (Strauss A 1990) include customer-driven quality, top management leadership and commitment, continuous improvement, fast response, actions based on facts, employee participation. Once it is recognized that customer satisfaction can only be obtained by providing a high-quality product, continuous improvement of the quality of the product is seen as the only way to maintain a high level of customer satisfaction. As well as recognizing the link between product quality and customer satisfaction, TQM (Alexandros G 2007) also recognizes that product quality is the result of process quality. As a result, there is a focus on continuous improvement of the company's processes. This will lead to an improvement in process quality. In turn this will lead to an improvement in product quality, and to an increase in customer satisfaction. To achieve customer satisfaction, the company has to respond rapidly to customer needs. These can be achieved with customer-driven and process-oriented product development because the resulting simplicity and efficiency greatly reduce the time involved.

Since TQM is based on the organizational improvement and customer satisfaction (SRIKANTH K et.al 2010) and intelligence is also one of the factors in the development, it seems to be a relationship between organizational intelligence and TQM system. The purpose of this paper, therefore, was the study of the relationship between organizational intelligence and implementation of total quality management system based on ISO 9001:2000 standard is studied.

2. Material and Methods

This research is in nature an explanatory research carried out in from of a survey. The statistical population of this research comprised of all employees and managers of the afzalipoor and ayatollah kashani hospital in kerman town (iran). The said population consists of 836 employees and 69 managers.

As it is important to determine a representative sample volume for the generalization of the results of this research to the population in question, therefore, 263 members were selected by stratified random sampling and due to the limitation of managers; the whole members of managers (69) were selected as the samples of this research. The first sample volume is calculated by cochran formula.

For the purpose of this research, two questionnaire have been prepared that is the result of library studies and based on the components of the standard questionnaire of Albrecht (2003) for organizational intelligence and TQM based on ISO 9001:2000. The organizational questionnaires have filled by chosen employees and TQM questionnaires have filled by managers.

2.1. Organizational Intelligence Questionnaire

To assess organizational intelligence, the Albrecht organizational intelligence questionnaire was used. This questionnaire has been used frequently for management researches, and responses on the 5-point Likert-type scale ranged from 1 = strongly disagree to 5 =strongly agree. This questionnaire contains 40 questions based on the seven skills introduced by Karl Albrecht including "appetite for change" (questions 1 to 6), "shared fate" (questions 7 to 11), "strategic vision" (questions 12 to 16), "knowledge deployment" (questions 17 to 22), "alignment and congruence" (questions 23 to 27), "heart and soul" (questions 28 to 33) and "performance pressure" (questions 34 to 40). The reliability coefficient of this questionnaire was reported to be 0.806. Also, bahnar kerman University professors and authorities have confirmed the construct validity of this questionnaire.

2.2. TQM questionnaire

A researcher made Questionnaire that included 22 Q on TQM based on ISO 9001:2000 and 5 items include "process documentation" (questions 1 to 4), " management responsibility and pledge " (questions 13 to 17),),"source management (questionc5 to 9), "product realization" (questions 10 to 12) and " mensuration process" (questions 18 to 22). This questionnaire has been scored based on the 5-level Likert scale (strongly disagree=1 to strongly agree=5). The reliability coefficient of this questionnaire was reported to be 0.93. Also, bahnar kerman University professors and another researcher have confirmed the construct validity of this questionnaire. They have determined the validity of this questionnaire to 0.88.

2.3. Data analysis

The data and information obtained from the questionnaires of Albrecht organizational intelligence and TQM test taken from the employees and managers of afzalipoor and ayatollah kashani hospital were analyzed using spss software. First, we have used the chi-square test and then Pearson and kendall correlations were conducted to examine correlations among measures.

3. Results

Chi-square test with a significance level of 0.000 and one degree of freedom used to assess the independence between the organizational intelligence and TQM. Chi-square test hypotheses include:

H0: TQM system and organizational intelligence are independent of each other.

H1: TQM system and organizational intelligence are not independent of each other.

The chi-square test statistic value is obtained 55.874. According to statistic value and significance level the zero hypothesis is rejected. It shows organizational intelligence and TQM system implementation is not independent.

After we have conducted Pearson and kendall correlations to examine correlations among measures. Pearson and Kendall coefficients were obtained 0.632 and 0.685 subsequently. The obtained results show that organizational intelligence and TQM system implementation have a significant relationship.

4. Discussions

This paper has studied relationship between organizational intelligence and total quality management system implementation based on ISO 9001:2000. The data and information obtained from the questionnaires of Albrecht organizational intelligence and TQM test taken from the employees and managers of afzalipoor and ayatollah kashani hospital were analyzed using spss software. First, we have applied chi-square test and found that organizational intelligence and TQM system are not independent. Then Pearson and kendall correlations were conducted to examine correlations among measures. Pearson and Kendall coefficients were obtained 0.632 and 0.685 subsequently. The results showed a strong positive and significant relationship between organizational intelligence and quality. According to the evidences, organizational intelligence is related to application of knowledge, composition of the knowledge, distribution and organization of knowledge and organizational development and innovation. Based on research findings, managers, supervisors and employees who have a higher intelligence are more compatible with the organizational culture and conditions and show their creativity and innovation. Hence, as obtained results shows that the more the intelligence, the more the quality and it was confirmed by the findings of this study.

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