The Relationship between Ict and Organizational Commitment among Nurses

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Abstract

The purpose of this research was to study relationship between Information and communication technology and organizational commitment among the hospitals nurses in shahinshahr city in year of 2012-2013. The research method in this study is correlation descriptive. The participants of this study were 117 nurses in hospitals which were randomly chosen from all nurses and finally, 91 questionnaires were analyzed. The data collection tools included two questionnaires which were about the Information and communication technology and organizational commitment, with 20 and 24 questions accordingly. The questions were based on the Likert scale. The validity of the questionnaires was content-based validity and the reliability of the questionnaires was 0.88 and 0.86, based on the Cronbach Alpha Coefficient. To analyze the data, descriptive analysis and inferential analysis (Pearson coefficient correlation, regression analysis) were used. The results of the study showed there was a correlation between Information and communication technology and organizational commitment.

Keywords: affective commitment, continuance commitment, ICT, normative commitment, organizational commitment
Introduction

Nowadays organizations are Professional Bureaucracy systems, which are adequate to stable operating work, leading to standardized behavior, and complex environment, so should be controlled directly by the operators who do it. “The organization turns to the one coordinating mechanism that allows for standardization and centralization at the same time, namely the standardization of skills” (Mintzberg, 1979). This stable environment has been changing because of the fast development of information and communications technology. Implementing ICT in education allows the possibility to rethink the teaching-learning process but this is not the unique possible benefit. The use of computers, web technologies, Internet, Intranet, and networks offer many possibilities of development at all levels of the organization and to all the personal involved in it. The success of adopting new technology not only requires changes in the design of the organization structure to facilitate the implementation of ICT but in the behavior of their members. However yet, whilst ICT use is increasing, this “transformation” has not yet occurred, and the extent and nature of ICT application in organizations is still very varied and in many instances limited.

Information and Communication Technology (ICT) is a wide term that refers to all computer-based advanced technologies for managing and communicating information. It is broader than Information Technology (IT) which is defined as “the study, design, development, implementation, support or management of computer-based information systems, particularly software applications and computer hardware” (Information and Communication Technology Institute, 2004).

So, ICT covers a vast range of technological devices and various combinations of them. In several decades back in the history, postal, radio and telephone services were also considered within ICT. However, in a modern society, ICT means only specific type of communication technology. Namely, it covers all the range of computer based communication technologies (Buchanan et al, 2003).

User satisfaction is a widely used of ICT success. In prior research is referred to the extent that users believe ICT met their needs (Delone and McLean, 1992; Igbaria and Chakrabati, 1990). It relates to how well information needs are being met. In educational context it represents beliefs of students about meeting the service they need, and it represents beliefs of academics about receiving a good support not only technical but also pedagogical in order to enhance their work. A growing body of empirical evidence available suggests that ICT affect the nature of office work, job satisfaction, and the quality of the work life.

The impact of information technology will have significant effects on the structure, communication, management and functioning of most organizations. It demands new patterns of work organization and effect individual jobs, the formation and structure of groups, the nature of supervision and managerial roles. Information technology results in changes to lines of communication, command and authority, and influences the need for reconstructing the organization and attention to job design. Computer based information and decision support systems influence choices in design of production or service activities, hierarchal structures and organizations of support staffs. Information Communication Technology may influence the
centralization/decentralization of decision making and control systems. New technology has typically resulted in a flatter organizational pyramid with fewer levels of management required (Edward et al., 1991).

In recent times, technology has become an ever increasing presence in organizations and it is one of the hot topics. More and more businesses, large and small, are trying to incorporate the latest technology into their operations. This notion is evidenced by the fact that the popular publications now have technology sections, and information systems departments are becoming critical components of most organizations. The appeal of the whole information technology arena is that arguably it is designed to make people and organizations more knowledgeable, efficient, and profitable.

The scope of technology that an organization can espouse or employ is huge. Regardless of the complexity of the system or the size of the organization, one thing is certain - the incorporation of such technology or information systems will accompany change. Implementation of technological systems can either act as a catalyst for change or be the means of achieving a desired change. Regardless of the motivation, a properly integrated system ideally will take into account the impact on the organization before it is put into place. The contribution of information technology and its impact on the organization is emphasized by Nadler in (Gerstein, 1992), who states "perhaps the largest single influence on organizational architecture and design has been the evolution of information technology, certainly has its place among the key elements which shape an organization. It seems to be a common theme that information systems will change even more traditional supervisory relationships. Computer networks allow people to communicate quickly, share ideas, and transfer information.

In the literature there are many definitions for organizational behavior. Gibson, et al (2000) described organizational behavior as follows: “The field of study that draws on theory, methods and principles from various disciplines to learn about individual perspectives, values, learning capacities and actions while working in groups and within the total organization; analyzing the external environments effect on the organization and its human resources, mission, objectives and strategies”. Also, Daft and Noe (2001) defined organizational behavior as: "The actions and interactions of individuals and groups in organizations". Communication is widely studied as a means of transmitting ideas as part of culture (Jandt, 2004).

The concept of organizational commitment is central to organizational behavior research. Organizational commitment is defined as an individual's attitude towards an organization that consists of (a) a strong belief in, and acceptance of, the organization's goals and values; (b) a willingness to exert considerable effort on behalf of the organization; and (c) a strong desire to maintain membership in the organization (Mowday et al., 1982). Organizational commitment has three primary components: (1) a strong belief in and acceptance of the organization's goals and values; (2) a willingness to exert considerable effort on behalf of the organization; and (3) a strong desire to remain with the organization (Porter et al., 1974). Highly committed employees intend to stay within the organization and to work hard toward its goals (Luthans, McCaul, Dodd, 1985). Meyer & Allen (1991) argued that there were three types of organizational commitment: (1) Affective Commitment: refers to the employee’s emotional attachment to, identification with, and involvement with the organization. Employees with a strong affective
commitment continue employment with the organization because they want to do so. (2) Continuance Commitment refers to an awareness of the costs associated with leaving the organization. Employees whose primary link to the organization is based on continuance commitment remain because they need to do so. (3) Normative Commitment reflects a feeling of obligation to continue employment. Employees with a high level of normative commitment feel that they ought to remain with the organization. Career identity can be conceptually tied to work commitment (e.g. Dubin & Champoux, 1975), organizational commitment (Salancik, 1977) and organizational citizenship (Organ& Ryan 1995). Thus, career motivation may positively correlate with organizational commitment. Although affective, continuance, and normative commitment are used to capture the multidimensional nature of organizational commitment, affective commitment is considered a more effective measurement of organizational commitment. Employees with strong affective commitment would be motivated to higher levels of performance and make more meaningful contributions than employees who expressed continuance or normative commitment (Brown, 2003). Thus, affective commitment alone is one of the key concepts of employee behavior. In this study we examined the association between career motivation and affective organizational commitment.

It could include specific interactions related to affective behaviors including: pay, promotion, supervision, fringe benefits of employment, contingent rewards, operating conditions, coworkers, nature of work, and communication (Spector, 1997; Hallock, et al, 2004). Sheykhshabani , Beshlideh (2011) proffer the view that job satisfaction relates to an individual’s perceptions of a job, and this perception is in turn influenced by their circumstances, including needs, values and expectations. Organizational commitment has also an important place in the study of organizational behaviors since the studies have found relationships between organizational commitment and attitudes and behaviors in the workplace (Tsai, C, 2008). Pastore and Maguire (2006) defined organizational commitment as a strong belief in the organizations goals and values and a willingness to exert considerable effort on behalf of the organization. Commitment to organization is linked to very important work-related factors: employee turnover, absenteeism and performance (Pastore, & Maguire, 2006; Chu, et all 2003). Organizational commitment is regularly conceptualized as an affective attachment to an organization as a consequence of an individual sharing the organization’s values, their desire to remain in the organization, and their willingness to exert effort on behalf of the organization (Mowday et al., 1979).

Fig 1: Research Conceptual Model
Hypothesis

Major Hypothesis:

- There is relation between ICT and organizational commitment

Minor Hypothesis:

- There is relation between ICT and normative commitment.
- There is relation between ICT and continuance commitment.
- There is relation between ICT and affective commitment.

Methodology

The current study is a descriptive correlation research. The statistical population consisted of all nurses, and 117 individuals were selected by random sampling which eventually 91 nurses answered. The tools used for collecting the data was a questionnaire: ICT questionnaire, This questionnaire had 20 items. Each statement includes a five-point Likert scale (from strongly disagree=1 to strongly agree=5) with reliability coefficient of 0.88 and questionnaire about organizational commitment with 24-item scale, according to three sub-scale (affective, normative, continuance) devised by Meyer & Allen (2002). It is a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), with reliability coefficient of 0.86. All data were analyzed using the Statistical Package for the Social Sciences (SPSS 17).

Appropriate statistical procedures for description and inference were used. The missing values were checked prior to further statistical analysis. The correlation coefficients were calculated to evaluate the relationship between variables. Regression analysis was used to identify the most important predictor domains in ICT. P-value considered less than 0.05 as significant.

Results:

Major Hypothesis:

- There is relation between ICT and organizational commitment.

<table>
<thead>
<tr>
<th>variables</th>
<th>r</th>
<th>N</th>
<th>p</th>
</tr>
</thead>
</table>

Table1. Correlation Coefficient between Ict and Organizational Commitment
Regarding the above table 1, correlation coefficient between Information and communication technology and organizational commitment (P=0.001) and it has been positive, then there is a direct relationship between Information and communication technology and organizational commitment nurses.

**Minor Hypothesis:**

- There is relation between ICT and components organizational commitment (affective, continuance, normative).

**Table 2. Correlation Coefficient between Ict and Components Organizational Commitment (Affective, Continuance, Normative).**

<table>
<thead>
<tr>
<th>organizational commitment</th>
<th>continuance</th>
<th>affective</th>
<th>normative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information and communication technology</td>
<td>r= 0.564 P= 0.013 N= 91</td>
<td>r= 0.629 P= 0.001 N= 91</td>
<td>r= 0.671 P= 0.001 N= 91</td>
</tr>
</tbody>
</table>

As Table 2 shows the between ICT and components organizational commitment (affective, continuance, normative) there were relation.

**Table 3 Regression Analysis of the Ict of the Organizational Commitment**

<table>
<thead>
<tr>
<th>criterion variable</th>
<th>Prediction</th>
<th>$\beta$</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information and communication technology</td>
<td>affective</td>
<td>0.27</td>
<td>6.01</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>continuance</td>
<td>0.29</td>
<td>4.93</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>normative</td>
<td>0.36</td>
<td>6.17</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Findings in table 3 showed that the observed t- test is significant particularly about components organizational commitment: affective, continuance and normative (p=0.00). Of Information and communication technology. So the hypothesis is generally confirmed between all components.
organizational commitment and Information and communication technology relationship between Predictions.

Discussion

The results from tables (1, 2 and3) about hypothesizes of research showed that correlation coefficient between organizational commitment and ICT was significant ($r=0.69$, $P=0.001$, $\alpha=0.05$ (table 1) and ICT and components organizational commitment (affective, $r=0.629$, continuance, $r=0.564$, normative, $r=0.671$) there was a relation. Therefore there is a direct relationship between organizational commitment and ICT. Variance in each of these important organizational outcomes has also been predicted using various measures of employee Job satisfaction (Chiok Foong Loke, J, 2001).

Technology enables the knowledge and commitment worker. It provides the foundation for making full use of data coupled with employees’ skills and ideas. There is a need to automate and centralize the sharing of knowledge to deliver only the relevant information to employees from every possible source. They ensure the right information goes to the right person at the right place and at the right time. The challenge for many organizations is to capture an employee’s knowledge and share it with others, thereby empowering and commitment the entire organization to make best use of its information. Furthermore, single organization employee rarely performs an entire work process, therefore staff must be able to collaborate and work as team on different project documents and databases which usually reside in disparate back-end systems.

Organization can empower and high commitment their employees by developing new service processes and exploiting open Web-based technologies that enable easy integration among applications, devices and data storage. Automated workflow, document management, data warehouses, intranets and extranets can all work together to ease the flow of communication. They allow organizations to optimize processes on a team-oriented basis. They also enable employees to move naturally back and forth from working within a document to working within a group of people. No matter what they are doing, common applications are always at hand. Colleagues can respond easily to day-to-day questions and unplanned events in real-time. Employees throughout a department can contribute to a goal without major interruptions in the flow of their work.

From this discussion, it is apparent that technology is a critical element of organizational transformations. While it is generally viewed as progressive and a means to increase the efficiency and overall performance of the organization, this can only happen if it is done as part of a larger change effort, regardless of whether the change is driving the technology, or technology is driving the change. Organizations that are able to successfully undergo such changes will be better prepared for the future, since there is no doubt that the emphasis on increased use of information technology and advanced automated systems will continue. As one source put it, "the trend toward a highly mobile, flexible, dynamic, informed and networked workforce is growing exponentially."(Jenner, 1994).
Organizational commitment refers to identification with and loyalty to the organization and its goals (Blau and Boal, 1987) which Mowday et al. (1979) defined as the relative strength of an individual’s identification with and involvement in a particular organization. In particular, commitment is characterized by three factors: a strong belief in and an acceptance of the organization’s goals and values; a willingness to exert considerable effort on behalf of the organization; and a strong desire to maintain membership in the organization.

Therefore, enhancing professional commitment in nursing has the potential to produce benefits for both the individual and their organization (Cohen, 1998; Cohen, 1999). Furthermore, professional commitment is positively related to the used technology of personnel in organization (Lu et al., 2000).

Reference

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