The Analysis Impact of Information Technology and Organizational Structure on Strategic Knowledge Management
(Case Study: Islamic Azad University, Kermanshah Branch)

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ABSTRACT

The main purpose of this study is analysis impact of information technology and organizational structure on strategic knowledge management in Islamic Azad university Kermanshah branch. The statistical population of this study is 60 employees of Islamic Azad university Kermanshah branch. In order to determine the sample size, Cochran's formula was used. Consequently, 52 employees (Bosses, Deputies and Managers educational groups) were selected as sample members by random sampling method for the first half of 2013. The study is descriptive – survey and correlation in term of methodology. The Martinez-Lorente et al Information Technology questionnaire (2004), Robin's organizational structure questionnaire (1987) and Carolina et al Strategic Knowledge Management questionnaire (2011) were used tin gathering data. Validity (content, convergent, divergent) and reliability (factor loading, composite reliability, cronbach's alpha) of questionnaire indicate that measuring instruments have good reliability and validity. The results of test hypotheses by SMART-PLS software and using t-test statistics and path coefficients (β) indicate that among employees of Islamic Azad university Kermanshah branch, information technology having strong influence is direct and significant on organizational structure, organizational structure having positive effects is direct significant on strategic knowledge management and information technology having positive effects is direct and significant on strategic knowledge management. The organizational structure can play a mediator role in relationship between information technology and strategic knowledge management. On the other hand, information technology, as a moderator variable, can promote the positive effects of organizational structure on strategic knowledge management.

Keywords
Information Technology, Organizational Structure, Strategic Knowledge Management.

1. INTRODUCTION

The rapidgrowth of information technology (IT) and spread of its influential domains are so straightforward in all human life aspects that its effects on business and economic realms are undisputed since leading to global pecuniary transactions and organizational interactions. IT has transformed individuals', ' organizations', and governments' functioning ways resulted in economic and social upheaval. Undoubtedly, quick access to accurate information is the key to succeed in global Competition arena [1]. The reason for attributing thecurrent age to information explosion age will be the probable organizations' emphasis on information and IT and its considerable importance from different aspects and dimensions. Thus, Information is a criterion and a touchstone for empowerment. Given that IT is growing around the world, organizations require this technology to survive, and any organization ignoring such an issue is doomed to fail [2]. Therefore, it raises the question and touches the raw point that: "What is IT"? According to Sarafizadeh (2011), IT is attributed to different forms of technology dealing with the processing, keeping and sending information electronically. The respective physical equipment includes computers, communication network equipment and data transfer equipment like fax as well as mobile phone units [3].

According to Mir-Rokni (2008), IT includes all technologies in collecting, transferring, storing, retrieving, processing, disseminating and display information [4]. According to Azarang (2001), IT is a set of tools, equipment, Knowledge's, and skills used in collecting, storing, retrieving, and transferring information [5]. Holmes and Keith (2010) have defined IT as what is employed to describe a type of technology help us record, store, process, transfer and receive information. The term encompasses new technologies such as computers, transmission via faxes, micrographs, and telecommunications [6]. According to MollaHosseini and Moshkdaniyan (2011), IT is a set of processes, methods, techniques, instruments, equipment machinery and skills by which a product is made and / or a service is provided [7]. Ataran (2003) has defined IT as a set of capabilities provided to an organization with computers, application software and telecommunications equipment, which gives required data, information and Knowledge to individuals and processes [8]. Eral (1989) has defined IT as a strategic tool used to gain competitive advantages, to improve productivity and performance, to create new management practices and to organize new businesses [9]. Bhatt and Grover (2005) refereed to IT as an important element in an organization because it encourages recognition of scarce, invaluable and non-imitable resources, provided that the organization understands IT merits [10]. Martiınez-Lorente et al. (2004) classified IT merits into four broad categories: (a) IT in communication, refers to what is directly involved in information exchange, including e-mail, fax, telephone, access to Internet, etc. ; (b) IT in production and operations, acts as an umbrella covering a range of computer technologies to support, directly and indirectly, control, discover and monitor production and operational activities; (c) IT in decision support, refers to application of IT to support managers in decision-making process, including decision support systems, data analysis techniques and predictive software; along with (d) IT in administrative and pecuniary affairs, refers to application of IT in order to help perform administrative or official activities like organizational documents, data organization and storage, etc [11].

In order to apply IT appropriately, organization need an appropriate structure for using IT effectively, and by doing so, some changes are made in organizational structure, for example organizations change into horizontal state from vertically hierarchical one and an appropriate organizational performance is achieved [12]. finally, as Robbins (2013) found out, some outcomes of resulting revolution in IT include a combination of centralization and de centralization within organizations, flatter organizations, and enabling tens million workers and employees to work at home [13]. Therefore, it should be noted that organizational structure is one of key variables influenced by IT and that relationship between IT with its general concept and organizational structure was investigated in a classic research done by Woodward in 1960s and extended by others like Perrow. Mentioned theoreticians believed that technology is a factor determining organizational structure [7]. So it needs to be asked, 'What is organizational structure?' Mintzberg (1994) Organizational structure is a set of ways dividing a task into specific duties and coordinating them. Organizational structure is a framework of relationships governing jobs, operational systems and processes, and individuals and

groups making efforts in order to achieve a shared goal [14]. Monavariyan et al., (2008) Organizational structure reflects power distribution in an organization and is not solely a coordination mechanism, rather it influences organizational processes. In addition, Organizational structure signifies intra- organizational relationships, power, and communication models, and clarifies reporting relationships, formal communication channels, responsibilities assignment, and delegation of decision-making power [15]. Nafari and Omidfar (2010) Organizational structure is a regime of relationships established informally, approved formally, and governs activities of individuals who are dependent on each other to achieve shared goals [16]. Pettinger (2000) Organizational structure reflects organization's goal and objectives, size and complexity of jobs, nature of specialties applied. Styles intended to supervise and manage affairs, and devices and tools used to exercise coordination's and controls [17]. [18] Wang and Ahmed (2003) Organizational structure suggests practices based on which people and jobs are organized within the organization so that to do organizational affairs is possible [18]. Mojibi and Millani, (2011) Organizational structure is a framework defining formal boundaries of organization's and being regarded a major guide for employees' effective and proper performance and for organization's success [19]. Fakhimi (2000) Organizational structure is a continuous process of changes in surrounding environment, strategies, and intra-organizational factors inevitably change over time [20]. Hashemian Bojnourd and Afrazeh (2005) Organizational structure shows hoe duties are assigned, specifying mechanisms of organization's formal coordination and interaction models, which are to be regarded [21]. Akbari et al., (2012) Finally, organizational structure is a formal system of duties and power relationships, which controls how people's economic activities and utilization of resources are coordinated in order to achieve organizational global. Organizational structure appears in the charts of organizations, in which power relationships, formal communication channels, formal work groups, and formal responsiveness lines are apparent. So it can be argued that organizational charts are a summary and abstract of organizational structure reality. In definition of organizational structure, 3 major elements are referred to;

- Organizational structure determines formal reporting relationships in an organization.
- Organizational structure assigns individuals to be working collectively within divisions.
- Organizational and economic structure includes systems by which all activities of divisions are uniformed.

Although concept of organizational structure is a truth, influencing organizations' staff, it is virtually an abstract concept, it needs to be noted that better organizational structure never exists. In order to survive and even to maintain status quo in present age; however, an organization can manage to improve performance of human force in terms of its productivity in developing and planning accurate structure.

Organizational structure must be perpetuated in order to prevent standstill and destruction of organizations. Organizational structure is not an end, but a means to reach the end [22]. Given matters abovementioned based on Taherpoor et al (2009), several factors with the most effects

on structure can be mentioned as complexity, formality and centralization. Complexity is the extent to which individuals are specialized against professionals in their organization [23]. According to Deft (2012), ccomplexity is the result of environmental uncertainty and change in the form of a circulating process [24]. According to Robbins (2013), complexity will aggravate controlling and coordination conditions resulted from intra-organizational differentiation limit, which is of 3 types: (1) horizontal differentiation: It demonstrate a degree of differentiation between units based on individuals, their jobs, their education, and their training; (2) vertical differentiation: It goes to the core of structure, an increase in the number of hierarchy levels; and (3) geographical (spatial) differentiation, referring to the differentiation of offices, firms and organization's staff within different geographical areas [13]. Rezaiyan (2012) stated complexity refers to the rate of professionalism, work division and number of organizational hierarchy levels, asserting limits of geographically distributed organizational units. It is worth noting that, complexity is a relative term [25]. According to Hashemian Bojnourd and Afrazeh (2005), with intensified complexity and diversity in the environment, an organization creates some internal complexity to adapt to the thorny problem [21]. Sa'adat (2012) has pinpointed that an organization with numerous hierarchy levels called vertical differentiation), extensive supervision realm called horizontal differentiation and multiple geographical sites can be complex on its own [26]. Tavakol and Alimiri (2012) to speak of formality, it must be said that formality is the extent to which an organization relies on laws, rules, and procedures in order to direct its employees' behaviors. In other words, formality indicatesto the degree of standardization in organization's tasks. Formality id defined in terms of two forms: explicit and implicit in which the latter is highlighted by organizations [27]. According to Assadi (2000), simplicity, repetition and monotonous jobs engender high degree of formality potentially, whereas multifaceted job skills cause less formality. Formality reduces diversity and facility coordination. High formality eliminates ambiguity, but as a side effect it negates power of decision-making [28]. According to Zahedi and kheirandish (2007), centralization shows that the power of decision-making is centered. Centralization results in the distribution of power in an organization, and determines who is entitled to make decisions. Decision- making process is extremely centralized within some organizations. Challenges will be transferred to the apex of organizational pyramid where top management selects are vested to adopt proper actions in resolving them [29]. Shokrizadeh and Haddadzadeh (2012) have expressed opposite views on this type of decision-making is decentralization. In this case, power of decision-making is distributed in the lower levels of organizational hierarchy. It is highly important to recognize that with complexity and formality, an organization may assume a centralized state and / or turn to decentralization [30].

On the other hand, organizational structure can provide an infrastructure suitable for development and implementation of strategic knowledge management directly through decentralization, coherence, informality and/or facilitates sharing knowledge and experience individually and collectively indirectly through development of social interactions. In other words, knowledge management is influenced by many variables such as organizational structure

and IT, which can play a successful role in implementing knowledge management as a framework and infrastructure [31]. Transitional course of knowledge management can be broken down into three periods in which the first one called the first generation of knowledge management, dates back to the years of 1990-95. Among preliminary works done during the period, defining knowledge management, examination of potential advantages of knowledge management to businesses, and developing specific projects in the field of knowledge management can be mentioned just as a few. The second period of knowledge management began in 1996 and continued until 2001. Of research works done during this period, we can point to those done into artificial intelligence in knowledge management concluded in achievements in the field of knowledge provision and storage. The third generation of knowledge management emerged in 2002 with a research emphasis on the analysis of relationship of knowledge and action using structural models. In this period, knowledge was potentially sociocultural, and organizational knowledge management solely identified by alteration in operations and activities of organizations [32]. Given the past periods achievements, it raises the question, "What is knowledge management?" Koenig and Srikantaiah (2007) have identified knowledge management as a set of strategies, methods and approaches , applied properly, result in creating, keeping and using knowledge in organizations [33]. Gelinas et al., (2004) defined knowledge management as the process of storing, retrieving and sharing knowledge of organization people with others in order to enhance quality and efficiency of decisions [34]. According to Wickramasinghe and Lubitz (2007), knowledge management encompasses the entire methods in an organization employed to manage its knowledge assets, including knowledge collection, storage, transfer, application, update and creation. With respect to the above definitions of knowledge management, it should be mentioned that ;nowadays, knowledge is increasingly gaining more and more importance, which gives explicit meaning to the knowledge-based organizations. However, the mere addressing knowledge can't guarantee development since strategies for competition and progression should be duly managed. Organizations that create new knowledge and use it efficiently and effectively can succeed on the competition stage when strategic steps are defined in terms of intellectual resources and capabilities. Given an organization is in the competitive sphere, it should be duly aware of the adopted strategy. The respective sstrategic selections will have pivotal role, defined in terms of knowledge, skills and competences, in competition and superiority of a given industry. Perhaps strengths, weaknesses, opportunities and threats are the terminology best-known in the definition of strategy drawn over 30 years of research and experience. The framework, which needs to be updated in order to reflect knowledge-based environments, provides a foundation to set knowledge strategies. In order to understand their strengths and weaknesses in an optimum way, organizations basically need to draw map of their own knowledge resources and capabilities against strategic opportunities and threats by performing knowledge-based analyses (Sowt) [35]. It paves the way for recognizing invaluable knowledge-based resources and capabilities or those parts, which are unique and non-imitable. It also supports market situations, market products and services, which are the essential elements in knowledge strategy [36]. In order to reveal the link between

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strategy and knowledge, organizations need to set their own strategic goals and objectives, to identify knowledge necessary to implement strategies and compare it to their available knowledge so that they can reveal gaps in their own strategic knowledge [37]. Such a growing knowledge is as an invaluable source, encouraging managers to pay more attention to organizational knowledge management strategies. Strategies suitable for knowledge management are specially important because they ensure adjustment in an organization, push forward cultural processes and development of IT within the framework of knowledge management resulting in creation, division and application of knowledge effectively [38]. Knowledge management strategies are related to those processes and renewals used by organizations in order to share knowledge for making strategic decisions [39]. Organizational knowledge strategy describes overall approach of an organizational to balance knowledge resources and capabilities to respond to the needs of organizational strategy, thereby it reduces knowledge gap existing between an organizations current performance and what the organization needs to know in order to implement its strategies [40]. Defining a clarified and well-planned strategy is one way leading to successful in managing knowledge. Such strategy is an important factor in an organization facilitating organization of resources and capabilities in order to achieve the determined goals in knowledge management. Scrutinizing knowledge management strategy is a must contributing to solve the challenges an organization may encounter in the commercial fields. To run up the obstacles, the following challenges should be duly taken into consideration:

First, no accurate solution exists for all the entire problems an organization may encounter. In addition, there are no specific guidelines for implementing different and diverse practices and concepts in knowledge management. In order to cope with such problems, creation of strategies for knowledge management has become a concern for researchers inthis field [41]. Finally, it should be noted that a highly substantial and considerable point resulting in the importance of strategic approach in knowledge management is that knowledge management must serve strategic movement of an organization as well as its strategic interaction in business upheaval and changing environment [40]. According to Salojärvi et al., (2005) knowledge management, dismantled from strategic goals in an organization, are completely meaningless and unworthy. Several researches have been done in the field of knowledge management, clarifying a range of knowledge management strategies to render better classification [42]. Hansen et al., (1999) argued that strategies of knowledge management can be initially classified based on two principles including: (a) knowledge management focus, and (b) knowledge management resources. The former refers to strategy classified in terms of codification and personalization [43], while the former (Zack, 2002) refers to an increase in the organizational efficiency by formulating and re-using knowledge through exploiting advanced IT [39]. According to A'arabi and Mousavi (2010), codification strategy as a part of empirical knowledge can be created explicitly [44]. Mohhamadifateh et al., (2011); Jordan and Jones (1997) are of the opinion that knowledge acquisition takes place in codified forms [45, 46]. Storey and kahn (2010) stated that the strategy engenders explicit knowledge as well as formal

and regulatory language to organizations. In this strategy, information is gathered, classified and then stored through reporting research of databases [47]. Russo (2002) ha snoted that the strategy provides many individuals with an opportunity to search and retrieve knowledge without any relationship or contact with its producers [48]. Zack (1999) has asserted that personalization strategy intends to employ some personalization in which implicit knowledge is exchanged through face-to-face communications and social processes [40]. Mohammadifateh et al., (2011); Martini and Pellgrini, (2005) have shown that ppersonalization strategy places an emphasis on interactions among people by means of IT through using appropriate tools in fostering communications among individuals. The strategy will provide guides and directions through face-to-face interaction with experienced people [45, 49]. Zack (2002) argues that personalization strategy includes one-by-one learning of knowledge, and Takeuchi and Nonaka have notified its importance within informal conversations through the shared knowledge [39]. Finally, Russo (2002) opined that ppersonalization strategy focuses on some knowledge in terms of what a person acquires or creates. It exists in the minds expressed rarely in the form of words. People usually manifest the respective knowledge practically, which is feasible through sharing knowledge in constant contact [48].

Given the above remarks on knowledge management and its strategies, any type of agencies especially educational institutions need to implement knowledge management strategy effectively in order to survive, develop, and adapt to surrounding competitive environment changes, postulating the reason for an emphasis placed by information technology in organizational structure. On the other hand, perhaps it can be said that the most prominent task of strategic knowledge management within today's organizations is to analyze IT-related infrastructure in organizations. Thus, this section must be provided in such a manner that the trend of storing, data-processing and using knowledge should be adopted in a very systematic way. In other words, knowledge and its strategies embedded highly powerful technologies are integral parts in IT spearheaded in establishing efficient and effective roadmaps in a prospective organization. Knowledge management is a strategic way necessitates excellent management through exploiting opportunities provided by IT to achieve working goals. Therefore, technology needs to be selected to provide individuals with knowledge they need. In scientific circles, technology should be defined in terms of dynamic interaction between technology citizens in the field of knowledge management and strategies [50]. According to Walters et al., (2006), due to increased importance of knowledge in organizations, subject of strategic knowledge management in the modern organizations has gained more admittance [51]. Abtahi and Salavati (2007) have mentioned that it is necessary to employ codification and personalization strategies within organizations. Due to existence of different schools of knowledge management strategies in organizations, different strategies should be adopted in which organizational structure is of paramount importance in knowledge management[52].

Given the above remarks on increasing importance of knowledge management role within organizations, which outlines knowledge as the most strategic organizational source and gives importance to knowledge management strategies in organizations and the respective jobs,

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organizations face the thorny question how they can manage organizational knowledge effectively and efficiently to derive benefits from strategic goals. For this reason, researchers have made efforts to describe strategic knowledge management as well as ensuing IT effects and organizational structure. In other words, the aim of present research is to analyze the effects of IT and organizational structure on strategic knowledge management in Kermanshah Islamic Azad University. In addition, researchers seek to answer this question whether IT and organizational structure influence strategic knowledge management in Kermanshah Islamic Azad University or not.

2. LITERATURE REVIEW

Numerous researches have been done into research variables around the world which are mentioned as a few: Merātifashi (2013) studied relationships between organizational structure and implementation of strategic knowledge management in the endowments and charity office,namely Arak province of Iran. Results indicated a significantly positive relationship between organizational structure and implementation of strategic knowledge management [53]. Baghban et al., (2012) investigated relationships between IT and organizational structure in Islamic Azad University, Boien-Zahra Branch of Iran. Result showed that there was a significantly positive relationship between IT and organizational structure [54]. Akbari et al., (2012) investigated relationship of organizational structure with strategic knowledge management in Kermanshah Islamic Azad University, Iran. Result indicated that there was a significant positive relationship between organizational structure and strategic knowledge management [22]. Mirmasoudi et al., (2012) studied effects of IT on organizational structure in Gilan province banks, Iran. Results showed that IT influenced organizational structure [55]. Balochian et al., (2012) examined relationship between IT and organizational structure in Social Security and Welfare office of Ilam province, Iran. Result indicated that there was a significant negative relationship between IT and organizational structure [56]. Yarmohammadzadeh et al., (2011) tested relationship between organizational structure and IT as well as barriers on its establishment in viewpoints of faculty members of Isfahan University, Iran. Result demonstrated that there was a significant positive relationship between organizational structure and IT [12]. Huang et al., (2011) studied relationship between strategic knowledge management and IT strategy. Result showed a significantly positive relationship between strategic knowledge management and IT strategy [57]. Jafari et al., (2011) examined relationship of structural and cultural factors in organizations with strategies of knowledge management within therapeutic and general training centers of Tehran Medical Sciences University, Iran. Result indicated a significant relationship between organizational structure-cultural dimensions and knowledge management strategies [58]. During a study, Majidi et al., (2011) addressed coordination of structure and IT and its effects on the performance of Education Assistance of Security Sciences University of Iran. Result of this research showed that there was a significant relationship between technology and organizational structure and available technology is a complex one, structure suitable for which is a highly organic

one [59]. Akbari et al., (2010) studied relationship of IT level with 3-fold dimensions of structure within the selected hospitals of Tehran Medical Sciences University, Iran. Result showed that IT had no effects which can influence whole structure of studied hospitals; however, it influenced extensively 2 dimensions of structure, namely formality and centralization [60]. Liao (2007) examined the effects of strategic knowledge management and organizational structure on innovation. Result suggested, when an organization is to use personalization and codification strategies, its structure needs to be centralized in order to influence innovation [61]. Saadatmandi (2005) examined relationship of IT and organizational structure as well as barriers on the way of its establishment in Iranian National Steel Industry. Result showed a significant relationship between IT and organizational structure [62]. Gholipour (2004) studied effects of IT on organizational structure and work force in Iran. Result demonstrated that IT had an effect on organizational structure and work force [63]. Carrillo et al.,

Technology has affected on Organizational Structure.

Second hypothesis: Organizational Structure has affected on Strategic Knowledge Management.

Third hypothesis: Information Technology has affected on Strategic Knowledge Management.

Fourth hypothesis: Organizational Structure has mediator role in relationship between information technology and Strategic Knowledge Management.

Fifth hypothesis: Information Technology has a moderator role between the relationship Organizational Structure and Strategic Knowledge Management.

Conceptual model of research: According to research hypothesis, conceptual model is like Figure 1.

3. RESEARCH METHOD

Present research is an applied one in terms of the type and a descriptive-survey as well as correlation type in terms of data collection. Research statistical population consists of 60 employees (Bosses, Deputies and Managers educational groups) of Islamic Azad University Kermanshah Branch from which 52 subjects were selected at random by using Cochran's formula. [49] Extracted from Martiınez-Lorente et al (2004) 27-item questionnaire, [65] Robbins's 24-item questionnaire 1(1987) and, finally, [66] Carolina and Ángel (2011), 8-item questionnaire were used as major instruments to collect data in order to measure IT, Organizational Structure, and Strategic Knowledge Management, respectively. Using likert's 5-point scale for questionnaire of IT and SKM, (1= completely disagree; 5= completely agree), responses were measured and scored. In order to confirm validity of measuring instruments, 3 types of validity evaluation were employed: content validity, converged validity and diverged validity. Content validity, achieved by surveying some professors, is established by ensuring that measurement indexes are compatible with available literature. Converged validity is traced back to the principle that indexes of each factor have median correlation with each other. According to Fornell and Larcker (1981), standard of being converged validity is based on the average variance of exit (AVE) more than 0.5. Diverged validity was measured by comparing AVE square root to correlations among latent

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[1]. Adapted of general management book of Seyed Mahdi Alvani

variables (Table 2) [67]. According to Choua and Chen (2009), for each of reflective factors, AVE square root must be more than that factor's correlation with other factor of the model [68]. Also, present research used 2 measures of Cronbach's alpha and combined reliability factor in order to identify questionnaire reliability following. In all variables, Cronbach's alpha coefficients are more than a minimum value (0.7). Unlike Cronbach's alpha assuming implicitly that indexes have the same weights, combined reliability relies on real factorial loads of each factor, and therefore, it gives a

better measure for reliability. Combined reliability must obtain a value more than 0.7 to reflect inner consistency of factors [67]. Tables 1 and 2 represent results of reliability and validity of measuring instrument completely.

Based on the results of the SMART-PLS software outputs in Tables 1 and 2 shows that, Measuring tools have good validity (content, convergent, divergent) and good reliability (factor loading, composite reliability coefficient, Cronbach's alpha coefficient).
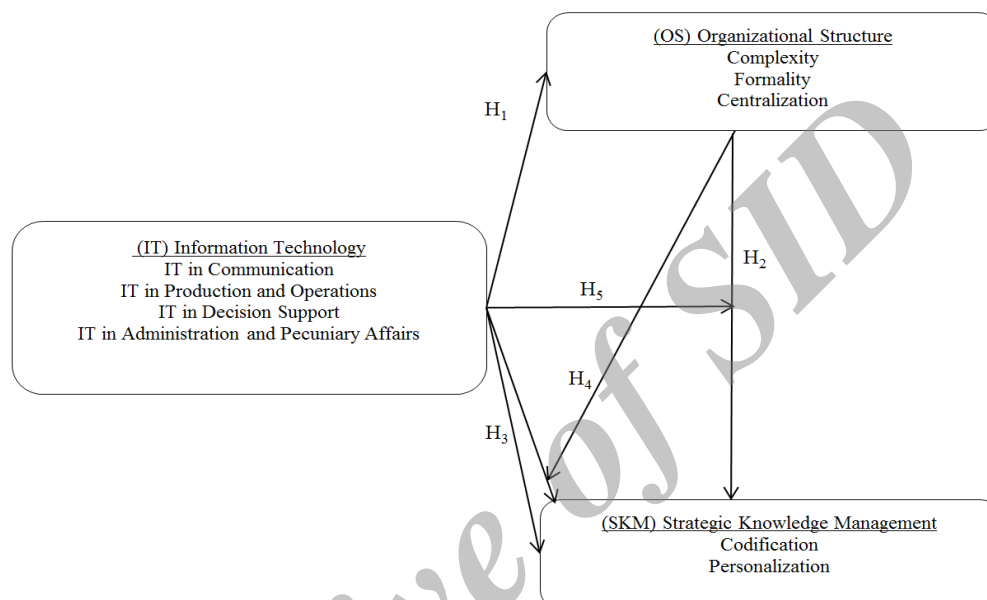

Figure 1. Conceptual model of research

3.1. Research Findings

The research used least minor squares method, which is a method for solving structural equations. Structural equation modeling is the only tool for analyzing trajectory or causal models. Trajectory models have at least 2 dependent variables, one of which plays the role of an independent variable for the second variable. In present research, variable of Strategic Knowledge Management is the variable dependent on IT and Organizational Structure in which the latter plays the role of variable dependent on IT. In fact, the technique is a combination of principal components analysis, which relates indexes to latent variables, and trajectory analysis, which allows creating a system of latent variables. Estimation of parameters representing indexes and of trajectory equations is done by conventional least squares techniques. Using this technique, researchers need to determine model structure and index equations initially. SMART-PLS software was used in this research. To provide structural equation models, this software employs minor least squares technique. And it is a suitable software for testing moderating effects [67]. Vinizi et al., (2010) stated that PLS trajectory models are estimated through 2 steps. In the first step, scores of any latent variables are estimated; and in the

second, moderating roles of latent variables are studied with respect to the state they have in trajectory models. Given the nature of the second step, many suggestions have shown that moderating effect of multiple regression can be tested by SMART-PLS software. Outputs of software and their analysis are given below [69] in which the SMART-PLS software output is illustrated (Figure 2) .

The result shows that the value of t (T-Value) is significant. If the t value is higher than 1.96 it means, there is a positive and significant effect. In this case, between +1.96 to -1.96 shows no significant effect and less than -1.96 means negative effect, but significant. Besides, path coefficients above 0.6 means a strong connection between the two variables, between 0.3 to 0.6 shows a moderate relationship, and under 0.3 indicates poor correlation [70]. Data obtained from field research was conducted in SMART-PLS software, and the above results were obtained from Figures 4 and 5. The brief form of analyzing each relationship is shown in Table 3.

Table 1. Convergent validity and reliability of measurement tools

Research variables	Coefficient of Average Variance Extracted (AVE)	Loadings factors	Convergent Validity Pc >0.7	Cronbach's Alpha
Information Technology	0.53	-	0.81	0.74
IT in Communication	-	0.78	-	-
IT in Production and Operations	-	0.73	-	-
IT in Decision Support	-	0.50	-	-
IT in Administration and Pecuniary Affairs	-	0.86	-	-
(OS) Organizational Structure	0.65	-	0.85	0.78
Complexity	-	0.85	-	-
Formalization	-	0.75	-	-
Centralization	-	0.82	-	-
(SKM) Strategic Knowledge Management	0.59	-	0.70	0.71
Codification	-	0.88	-	-
Personalization	-	0.57	-	-

Table 2. The correlation matrix and Divergent validity

Variable	AVE	Strategic Knowledge Management	Organizational Structure	Information Technology
Information Technology	0.72			1
Organizational Structure	0.80		1	0.60
Strategic Knowledge Management	0.76	1	0.63	0.71
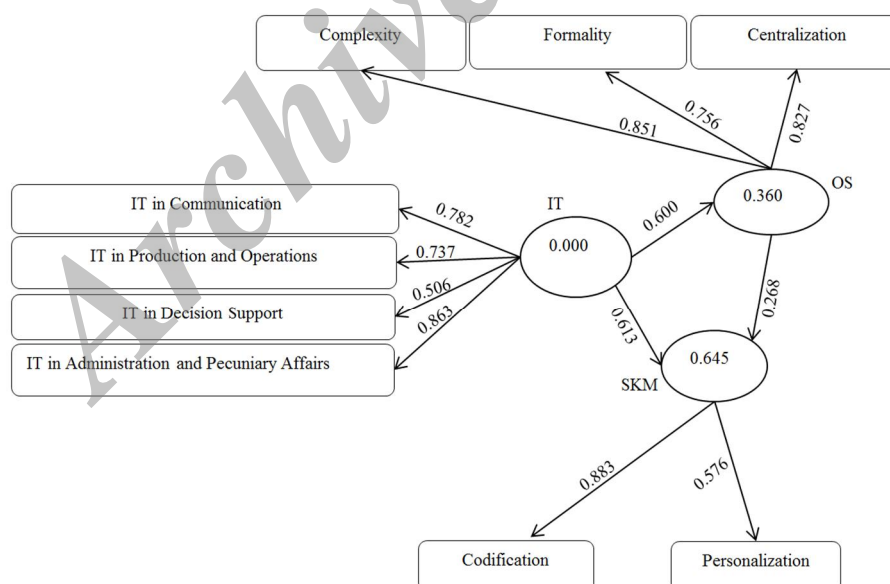
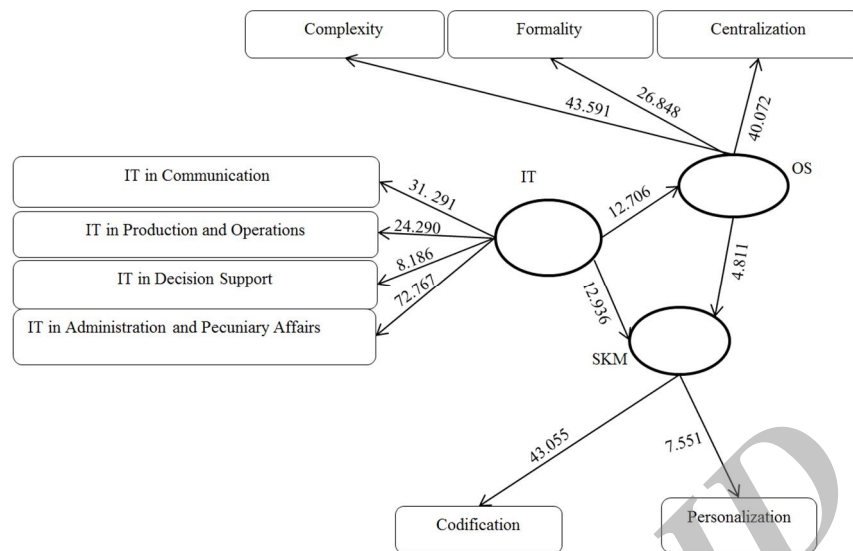**Figure 2. (a) The Path Coefficient Model**

Figure 2. (b) the results of t

By observing, Table 3 that is obtained based on the results of test hypotheses of can be proposed that: The result of the test the first hypothesis, regarding path coefficient 0.600 and the value of t, 12.706, shows that information technology is a strong and significant effect on organizational structure. The results of the second hypothesis, regarding path coefficient 0.268 and t value of, 4.811, there is evidence that Organizational Structure has a significant and positive effect on strategic knowledge management. The results of the third hypothesis, regarding path coefficient 0.613 and t value of, 12.936, there is evidence that information technology has a significant and positive effect on strategic knowledge management. To investigate the effects of total, direct and indirect of independent variables on dependent variable is necessary that be provided the total effects, direct and indirect for the inner variables of model (Table 4).

Table 3. Summarizes the Results of Hypotheses Tests

Level Impact	Significance Level	Tests Value of t	Path Coefficient	Variables
1. strong	Significant	12.706	0.600	1. IT ➔ OS
2. positive	Significant	4.811	0.268	OS ➔ SKM
3. positive	Significant	12.936	0.613	2. IT ➔ SKM

Table 4. Effects of total, direct and indirect

Total effects	Indirect effects	direct effects	Relationships of variables
0.600	---	0.600	3. IT ➔ OS
0.268	---	0.268	OS ➔ SKM
0.773	0.160	0.613	4. IT ➔ SKM

As Table 4 shows, information technology has direct and significant effect on organizational structure and also, organizational structure has direct and significant effect on

strategic knowledge management. The result was supported mediation role of organizational structure in relation to information technology and strategic knowledge management, and thus confirmed the fourth hypothesis of this research. In the Fifth hypothesis tests, which was evaluated role of moderating of Information Technology, in the relationship between organizational structure and strategic knowledge management the results are shown in Figure 3.

According to value of t, 2.844, and path coefficient 0.388, can be expressed as information technology has moderator role in the relationship between organizational structure and strategic knowledge management variables and Fifth hypotheses are confirmed. Confirming the hypothesis indicating that with the presence of the information technology is improved effect of organizational structure on strategic knowledge management.

1.2. Model Fitting

For PLS models, 2 models are tested: outer model, which is equivalent to measurement model, and inner model, which is similar to structural model for other software models (LISREL, EQS, and AMOS). To measure outer model fitness, communality average was used. R^2 was used for structural model fitness determination. Value of community average reflects a percentage of index changes justified by corresponding factors. Researchers considered the value more than 0.5 as an acceptable level of statistical community [71]. As seen from table 5, statistical communality showing model fitness is more than 0.5 value of R^2, which shows ability of model to describe factors, is 0.360 and 0.645 for Organizational Structure and Strategic Knowledge Management, respectively. When moderating role of IT is under study, value of R^2 is 0.649 for Organizational Structure. Following results suggest that provided model enjoys good fitness.
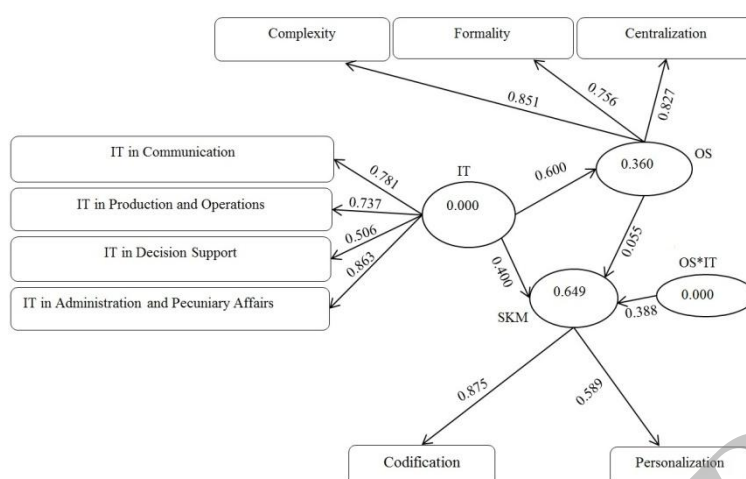
Figure 3. Testing moderator role of IT, in relationship between OS and SKM (a) path coefficients
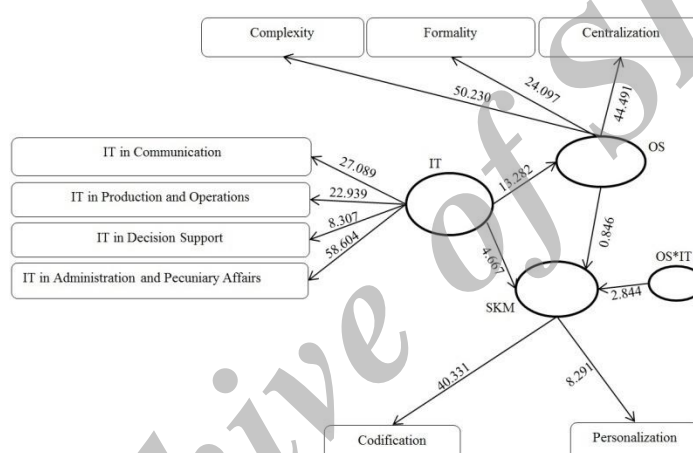

Figure 3. Testing moderator role of IT, in relationship between OS and SKM (b) values of t

Table 5. Effects of total, direct and indirect

Variable	Share Average	R^2
Information Technology	0.538	-
Organizational Structure	0.659	0.360
Organizational Structure In the presence of an moderator variable	0.675	0.649
Strategic Knowledge Management	0.555	0.645

4. DISCUSSION AND CONCLUSION

As mentioned earlier, the aim of this research was to analyze effects of IT and organizational structure on strategic knowledge management in Kermanshah Islamic Azad University.

The results drawn from findings indicate that, given a trajectory factor of 0.600 and t equal to 12.706, H_1 confirms that IT has a significant strong and direct effect on organizational structure. Results obtained from this hypothesis are similar to those obtained from research done by [54] Baghban et al., (2012); [55] MirMasoudi et al., (2012); [56] Balochian et al., (2012); [12] Yarmohammadzadeh et al., (2011). [59] Majidi et al., (2011);

[60] Akbari et al., (2010); [62] Saadatmandi (2005); and [63] Gholipour (2004); Like other technologies, IT influences different organizational factors including organizational structure. Accordingly, organizational structure should be changed to concordant to IT. Consequently; IT, in terms of its nature, will result in changes in an organization structural and contextual dimension. That's why flexible and dynamic, complex, low formal and professional structures are needed.

In addition, Testing H_2 with trajectory factor of 0.268 and *t* equal to 4.811 shows the conclusion that organizational structure demonstartes significant positive and direct effect on strategic knowledge management. Results obtained from this hypothesis are similar to those obtained from research done by [53] Merāti fashi (2013); [22] Akbari et al., (2012); [58] Jafari et al., (2011); and [61] Liao (2007). According to Asgari, (2005), in knowledge age as the most important asset of any organizations and societies, implementing knowledge management strategies is the task of the organizations aspiring learning them. Thus, various organizations which tend to survive and maintain their competitive position must take the path of implementation of knowledge management strategies. However, successful implementation of knowledge management strategies requires that different factors should

be taken into consideration in an organization such as organizational structure; technology, etc. Existence of gaps and discord among these factors prevents knowledge management strategies from being implemented successfully. The university involved needs to be able to pay sufficient attention to organizational structure in order to implement strategic knowledge management successfully in its organization [72].

Testing H_3, with trajectory factor of 0.613 and t equal to 12.936, shows that IT has a significant positive and direct effect on strategic knowledge management. Results obtained from this hypothesis are similar to those obtained from research done by [57] Huang et al. (2011); and [64] Carrillo et al, (2000). By means of IT, it is possible to draw knowledge from the mind of the experts, which can be included in structured format through codification and personalization and it can be passed to other insiders and to opponent organizations around the world. For this reason, Najafbeygi et al. (2011) found that, without an IT infrastructure, no organization can empower its employees to disseminate knowledge. In addition, lack of IT is the most important net into which most organizations are trapped [73]. Knowledge does not exist without information. Appropriate information can empower organizations to make better decisions and to advance their tasks intellectually.

Results of H_4 demonstarte that organizational structure plays a mediator role in IT's influencing strategic knowledge management. As RahmanSeresht et al., (2011) found out, today, knowledge are and strategic are invaluable assets. Mishandling them will cause improper quality services. On the other hand, it is impossible to deal with knowledge management strategies without a suitable and supportive structure. Organizations compatible with structures can smoothly run and convey knowledge. Organizational structure influences information flow as well as environments and human interactions, resulting in the creation of competitive advantage in knowledge economy. And since literature of knowledge management has placed emphasis on the importance of organizational structure reaching successful implementing strategic knowledge management depends on flexible structure and new practices of control and supervision [74].

For H_5, IT's role was examined in respect to organizational structure's influencing strategic knowledge management, and it is concluded that IT can play a moderator role in order to promote positive effect of organizational structure on strategic knowledge management (Figure 4 & 5), which, in turn, improves knowledge management strategies. As an effective, efficient and powerful tool, IT works in all aspects of knowledge management strategies such as capture, sharing, and application Technologies like interrelated data banks management system, documents management system, the Internet, e-mail, engines, etc. , which plays a critical role in facilitating the knowledge management. Not only IT does play a supportive role in knowledge management and knowledge management strategies, but it also helps people find their target information. Nevertheless, it is only the individuals themselves that can decide whether or not this information is commensurate with their needs [75].

It can be likely claimed that IT has pushed forward knowledge management strategies since it lies behind all knowledge management strategic-based activities. Despite of the above fact, IT is not the only component in knowledge management strategies. Other component such as organizational structure is of great importance in knowledge management strategies [50]. In other words, although technology plays an important role in developing and sharing knowledge, the role of organizational structure in implementation of (strategies) knowledge management cannot be overlooked. The obtained results drawn from structural equations model shows that the research proposed model can be considered as an empirical model can contribute to further similar research.

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