A Structural Equation Model of Knowledge Management for Empowerment

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Abstract

Objective: The purpose of the present study was to provide a structural equation model of knowledge management for empowerment in universities. The population of the research included all employees of Islamic Azad University (IAU) in Iran. Background: 1906 employees were selected using stratified and cluster random sampling method. The research instruments were two questionnaires which were administered in 89 IAU branches and education centers: Spreitzer’s (1995) empowerment questionnaire which consisted of 12 items with four underlying constructs of meaning, competence, self-determination, and impact and Cronbach Alpha of 0.84 and Sallis and Jones’s (2002) knowledge management questionnaire which consisted of 42 items with ten underlying constructs of vision and mission, strategy, organizational culture, intellectual capital, learning organization, leadership and management, teamwork and learning communities, sharing knowledge, knowledge creation and digital sophistication with Cronbach Alpha of 0.97. Results: The results of path analysis using LISREL software indicated that dimensions of knowledge management had a direct effect on empowerment with the indices of 0.53. Conclusion: The model also showed that the factor of learning organization in knowledge management had the highest direct effect on the factor of meaning in empowerment. It was also concluded that the proposed model showed full fit.

INTRODUCTION

The higher education system has caused a great deal of changes in social, economic and political fields. In addition, universities are social systems which have been known as the center of knowledge and information as well as thinking bases for leading societies. In today’s complex, competitive world, employees empowerment is considered as a competitive advantage for organizations. The features of the present-days organizations are dynamicity, complexity, ambiguity, and anti-traditionalism. To overcome such an insecure, complex, and dynamic condition, the only choice on the managers' table is to empower the organization and employees by gaining knowledge and skill which is rapidly out-dated. That is why having empowered and efficient workforce, which is a vital asset for any organization, can make numerous benefits for the organizations, firms, and economic enterprises. In the past two decades, empowerment has been an important topic of research as a new paradigm in management [10].

Peters and Waterman's “In Search of Excellence” (1982) laid the foundations for the modern empowerment movement [62], as organizations pursued advantage in an increasingly competitive global economy [59]. Niehoff and Turnley (2000) equated empowerment as the process where authority and responsibility are passed to individuals at lower levels of the organizational hierarchy who have the information and knowledge necessary to work independent of managerial control. Also, Building on Thomas and Velthouse’s [59], model, Spreitzer [54], defined psychological empowerment as a motivational construct manifested through four cognitions:

1. Meaning was defined by Thomas and Velthouse (1990, p. 668) as “the value of a work goal or purpose, judged in relation to an individual’s own ideals or standards.” It refers to the fit between the task requirements of a job and the employee’s own values, beliefs, and behaviors [8]. Low degrees of meaningfulness are believed to result in feelings of apathy and detachment (May, 1969).

2. Competence is concerned with “an individual’s belief in his or her capacity to perform activities with skill” [55]. In other words, it is the belief that one possesses the skills and abilities to perform a job well [25].

3. Self-determination is the feeling of having control over one’s work and focuses on the individual’s sense of having a choice in initiating and regulating actions [13]. Impact is the belief that one has significant influence over strategic, administrative, or operational outcomes at work [4].

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Psychological empowerment refers to a set of psychological states that are necessary for individuals to feel a sense of control in relation to their work role [56].

Organizations that have successfully implemented empowerment strategies have discovered improvements in productivity, customer service, quality, absenteeism, and turnover [23]. Individual productivity has been discovered to increase in organizations practicing empowerment [7]. When employees find their jobs more meaningful, they have a more proactive perception of the organization and the organization's leadership. The concept of employee empowerment has been integrated into the field of management and now forms a basic assumption in many management techniques [62]. During the past two decades, employee empowerment has been widely studied in different work groups or environments, such as faculty and administrators in colleges and universities [44], nurses (Kno1 [36], & Van Linge, 2009), hotel staff (Amenunney & Lockwood, 2008), life insurance company staff (Thorlakson & Murray, 1996), public welfare caseworkers [48], accountants [57], teachers (Dee, Henkin, & Duemer, 2003), and social workers [27].

In the recent climate of increasing global competition, there is no doubt about the value of knowledge and learning in improving organizational competence [49]. An increasing number of firms realize that knowledge management is a key resource for competitiveness, and a resource they can create and use to achieve greater value from core competencies. In this sense, firms have become much more interested in stimulating knowledge, which is considered as the greatest asset for their decision making and strategy formulation [32]. To improve organizational performance and to compete successfully in global markets, organizations need to have effective knowledge management. [11].

Darroch [12], defined knowledge management as “the process that creates or locates knowledge and manages the sharing, dissemination, and use of knowledge within the organization” In their book entitled “Knowledge management in education”, Sallis & Jones [51], offered a useful knowledge management self-assessment checklist with scoring elements such as

1. Vision and mission: It refers to having vision as a knowledge-based organization and sharing it with the stakeholders and the mission as the knowledge creator and translating it into practical strategies.
2. Strategy: It refers to developing modeled scenarios and applying them in the management.
3. Organizational culture: It refers to the different dimensions of culture including the creating, centralizing, sharing, and recognizing organizational culture as a key competence.
4. Intellectual capital: It includes recognizing the value of intellectual assets and codifying its tacit knowledge.
5. Learning organization: Under learning organization, organization should create continuous learning, define skills to create new knowledge, recognize EQ and its influences encourage creative thinking, and promote action learning both for individuals and teams.
6. Leadership and management: In leadership and management, organizations are required to have senior-management support, have knowledge leaders and managers with appropriate leadership styles, and develop strategies for promoting middle-managers.
7. Teamwork and learning communities: Under teamwork and learning communities, organization should encourage learning communities and knowledge teams, establish trust, and recognize the need for intellectual autonomy.
8. Sharing knowledge: It signifies that organizations ought to collect, record major organization events, and share new information, and understand competitors’ knowledge management system.
9. Knowledge creation: It requires the organizations to recognize new knowledge, those known as experts, and turn it into service.
10. Digital sophistication for the organization: In terms of digital sophistication, organizations are to develop technologies among its employees by clear technological architecture, enhancing its knowledge, and devising virtual collaborative systems and/or communities(pp.125-129).

Various studies have reported the consequences of effective knowledge management. For example, several studies found that good knowledge management practices could enhance organizational performance [40], and that knowledge management could create competitive advantages [3]. Other studies also indicated that effective application of knowledge management strategies has a significant relationship with variables such as innovation [34], change process [6], and productivity and effectiveness [63].

The results of a study by Khanalizadeh [33], indicated that there is a strong and positive relationship between organizational learning and empowerment. Shiralipour (2010) also revealed the relationship between organizational learning and the empowerment of the Tarbiat Modares University employees.

In a study by Chen and Xu (2010), the mechanism of knowledge management affecting the core competence of industrial clusters was studied. The findings led to the construction of a knowledge management system that helps to enhance the core competence of industrial clusters. Competence is one of the dimensions of empowerment in the present research.

The results of a study by Bailey [5], indicated that there is a strong and positive relationship between organizational culture and macro empowerment. In Joo and Shim's [29], study, the moderating effect of
organizational learning culture on the relationship between psychological empowerment and organizational commitment was found to be significant. Organizational culture is one of the dimensions of knowledge management in the present research.

Wiggins' [61], findings suggested that when compared to traditional education, popular education can help participants develop a deeper sense of empowerment and community and more multi-faceted skills and understandings, with no accompanying sacrifice in the acquisition of knowledge. The results of the study by Albrecht and Andreetta [1] were discussed in terms of the importance of training and development initiatives aimed at promoting empowering leadership, empowerment and engagement in health service contexts. According to Zhang [64], social learning was one of the important mechanisms in empowerment, while members' participation was an important process and background to elicit their sense of empowerment. One of the dimensions of knowledge management in this study is learning organization.

Wei et al. (2010) found out that the relationship between transactional leadership and subordinates' creative performance is moderated by team empowerment climate. A host of studies indicate that there is a significant relationship between leadership and empowerment [46]; [45]; [16]; [50]; [15]; [9]; [21]; [19]; and [42]. Leadership and management is also another dimension of knowledge management in this study.

Human empowerment would activate a potential capacity to benefit from an everlasting reservoir of capabilities. Empowerment is a modern and effective technique to enhance productivity in an organization through benefitting the employees' capabilities. The purpose of the present study was to provide a structural model for empowerment in universities based on knowledge management.

Materials:

Research questions:
1. What is the structural model of the empowerment based on knowledge management in universities?
2. Which variables have the highest effectiveness on empowerment?
3. How predictive is knowledge management on promoting empowerment?
4. How much is the goodness of fit in this study?

The research methods which were used in this study are: library research to access the theoretical framework and the related literature; survey method to collect, classify, describe, and analyze the data. The population under investigation in this study consists of official staff working in 420 branches and educational centers in 14 zones of Islamic Azad University in Iran. In order to estimate the least volume of sample, \( n = \frac{z^2 \sigma^2}{d^2} \) formula was used. Regarding the minimum sample required for the staff’s group which was estimated as 1906 people, the same number of questionnaires of knowledge management and empowerment were administered to the staff in 89 branches and educational centers. In order to select the research sample, two methods of stratified and cluster random sampling were used.

The research instruments were as follows: Spreitzer’s [55] empowerment questionnaire which consisted of 12 items with four underlying constructs of meaning, competence, self-determination, and impact and Cronbach Alpha of 0.84 and Sallis and Jones’s [51] knowledge management questionnaire which consisted of 42 items with ten underlying constructs of vision and mission, strategy, organizational culture, intellectual capital, learning organization, leadership and management, teamwork and learning communities, sharing knowledge, knowledge creation and digital sophistication with Cronbach Alpha of 0.97. The results of the study were calculated through path analysis using LISREL software.

Results:

The data collected from the administration of the instruments were analyzed. These data included the different indexes of central tendency, variability and the distribution of staff’s groups, the staffs’ scores obtained from knowledge management and empowerment questionnaires and their related components. The distribution of the staffs’ scores in the given variables had tendency toward normality.
As shown in Figure 1, the Lambda rate of external latent variable of knowledge management components was 0.72 for leadership and management, 0.73 for teamwork and learning communities, 0.68 for sharing knowledge, 0.77 for knowledge creation, 0.68 for digital sophistication, 0.70 for vision and mission, 0.81 for strategy, 0.81 for organizational culture, 0.79 for intellectual capital, and 0.83 for learning organization whose accumulation form the knowledge management variable with the effectiveness rate of 0.53. It means that 53% of the variation in the dependant variable of empowerment is explained by a collection of these indices. The variable of learning organization indicate the highest amount of internal consistency in the external latent variable.

The Lambda rate of internal latent variable of empowerment components was 0.53 for self-determination, 0.58 for competence, 0.70 for meaning, and 0.67 for impact whose accumulation form the empowerment variable. The variable of meaning indicates the highest amount of internal consistency in the internal latent variable.

Since the model’s goodness of fit index is 0.91, it can be stated that it has an acceptable fit. The calculated index indicates the direct effect of knowledge management components on empowerment. Moreover, the model shows that the highest direct effect is related to learning organization, the component of knowledge management, on empowerment in meaning component. The following table presents the indices related to the model’s fit:

<table>
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<th>Table 1: Model’s fit indices</th>
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<tr>
<td>Interpretation</td>
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<tr>
<td>High fit (equal to or more than 0.90)</td>
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<td>High fit (more than 0.90)</td>
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<td>High fit (more than 0.70)</td>
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<td>High fit (equal to or less than 0.05)</td>
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<td>High fit (more than 0.90)</td>
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The five goodness of fit indices presented model’s fit and empirical data. Therefore, desirability adaptation is provided for the designed model and empirical data and can approve it as an appropriate model for the performance.

Discussion:

The results of path analysis method revealed that dimensions of knowledge management have positive impact on empowerment. The findings of the present study, furthermore, indicated the influential role of knowledge management on empowerment. In a study by Chen and Xu (2010), the mechanism of knowledge management affecting the core competence of industrial clusters was studied. The findings led to the
construction of a knowledge management system that helps to enhance the core competence of industrial clusters. Competence is one of the dimensions of empowerment in the present research. Shiraliinpour [52], also revealed the relationship between organizational learning and the empowerment of the Tarbiat Modares University employees. A host of studies indicate that there is a significant relationship between leadership and empowerment [61]; [46]; [45]; [16]; [50]; [15]; [9]; [21]; [19] and [42], organizational culture and empowerment [5], organizational learning, training and empowerment [29;1]; and [64]. Leadership, organizational culture, and organizational learning are also dimensions of knowledge management in this study. This is somehow an indication of a significant relationship between knowledge management and empowerment.

Nowadays, the active presence of the organization in the scene of the competition and technology, and the creation of new job opportunities and the need to be multi-skilled have made empowerment inevitable. Through empowerment programs, work capacity is increased by delegation of authority, increased responsibility, autonomy in decision-making, and self-sufficiency which would result in high productivity and effectiveness. Outcomes of employee empowerment are: increased employee self-efficacy [10], the opportunity to learn and develop at lower levels of organization[38], improved performance [38], increased organizational effectiveness [30], increased employee involvement [38], motivation for task accomplishment [10], enhancement of the value of work for individuals, increased job satisfaction, and improved work productivity and success [55]. An empowered workforce is more likely to perform at higher levels [58]. Employee empowerment is the most successful way to improve employee morale, motivation, and job satisfaction so much as the topic has attracted a great deal of effort delving into its intricacies. Much of the existing research on the topic explores the relationship of employee empowerment to individual fulfillment needs, such as job satisfaction (Ubghoro & Obeng, 2000). In contrast, disempowered employees can be costly, not only in terms of turnover but also in terms of reduced job satisfaction and increased absenteeism [31]. Nowadays, the gap between the nations and societies is the existence and non-existence of knowledge. That is, having knowledgeable human resources is the major challenge. Human resource is considered the most important, expensive, and valuable capital. Human is the only intelligent being which can coordinate different factors. Without efficient human resource, there is no organizational objective come true. That is why human resources play an important role in the success and failure of the organizations. The significance of the human resources has long been proved and has been the top of agenda for those successful organizations. Drucker [17], has compared the staff in the recent two decades and concluded that the twentieth century is the century for the productivity of human resource. Although the most valuable asset of an organization used to be the tools, today, human resources are the playing this role. That is why the organization managers are required to reflect and redesign new methods and models about their human resources. In interaction with the environment, organizations are required to transform from a traditional organization into a modern ones. Experts in management and organizational psychologists suggest employee empowerment to be able to face the challenges. The Empowerment of Employees results in the empowerment of the organization which can guarantee the organization in the face of changing world. Having the ability to empower, any one in any position is able to make decision and manage himself.

In today’s knowledge economy, tangible assets are clearly transient as they rarely provide a distinct competitive advantage [22]. Knowledge has become a crucial strategic resource in most organizations as it plays a more important role than tangible assets. Companies are now competing on their ability to create and utilize knowledge [18]. Moreover, Eftekharcadeh, [20], states that effective and efficient knowledge management is a predictor for organizations remaining competitive over time. Since the success of an organization lies more in its intellectual capabilities than its physical assets, the capacity to leverage knowledge is fast becoming a critical advantage. Yet, determining the value of an organization is becoming increasingly complex.

Higher education is an “enterprise of human beings” [39], where technology and service delivery are primarily driven by human resources [28]. Thus, an innovative organizational climate that maximizes the potential of its members may be a viable option for an enhanced work environment where employees feel empowered to experiment with new ideas [53], and ultimately, may become important to the long-term survival of colleges and universities in today’s increasingly competitive environment [28]. The resource-based view suggests that the potential to transform it into skilled action provide firm with competitive advantage [18].

With regard to the findings of this study which confirms the relationship between knowledge management, especially the learning organization factor, on the Islamic Azad University employee empowerment, the author suggests that the employee empowerment be upgraded applying appropriate management mechanisms and improving indices of knowledge management particularly the learning organization factor. Since human resource is considered as the most important and valuable asset in an organization, empowering this valuable asset can be regarded as a competitive advantage in the present complex world. Underlining the effective role of higher education in the economic, social, political, and cultural development, this study can be carried out in other universities all around the world so as to practically take giant steps in performing knowledge management.

In other words, utilizing the results of the present study, other universities can foster their staff empowerment through improving the indices of knowledge management (including vision and mission,
strategy, organizational culture, intellectual capital, learning organization, leadership and management, teamwork and learning communities, sharing knowledge, knowledge creation and digital sophistication), especially the learning organization factor. The scientific methods adopted in this study can also be used for other universities to present their staff empowerment model based on the knowledge management which can lead to empowering the staffs in those universities.

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REFERENCES