



Knowledge Management Practices of Universities in Bangladesh: Lecturers' Perception

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Abstract

Objective – Aim of this study is to focus on the knowledge management practices of universities in Bangladesh. The study attempts to identify the level of four knowledge management dimensions that includes knowledge discovery, knowledge accumulation, knowledge sharing, and knowledge application.

Design/methodology – A questionnaire survey was conducted to collect the primary data from 108 university lecturers in Bangladesh. The knowledge management practices of the universities in Bangladesh were recognized by utilizing a close-ended questionnaires that is adapted from the Becerra-Fernandez and Sabherwal's Knowledge Management Process (2010).

Results – Results indicated that three knowledge management dimensions are moderately practiced by the Bangladeshi universities. However, knowledge accumulation was the dominant dimension in comparison with others, where knowledge sharing was the least dominant dimension of knowledge management.

Research limitations/implications – The study will facilitate the authorities of higher educational institutions to develop plans and strategies for practicing the knowledge management in the highest level. It is essential for creating a sound knowledge-based culture in the universities. Further research is recommended increasing the sample size and finding the impact of knowledge management on the organizational performance using SEM Model.

Keywords: Knowledge Management Practices, University, University Lecturers, Knowledge Accumulation, Knowledge Sharing, Bangladesh.

1. Introduction

Knowledge is termed as one of the most valuable assets for organizations (Sarkindaji et al., 2014; Goh and Sandhu, 2013; Howell and Annansingh, 2013), because the society turns to the knowledge-based economy (Goh and Sandhu, 2013; Howell and Annansingh, 2013). The emergence of knowledge-based economy has made it a strategic necessity for businesses to initiate ways to effectively acquire and manage varying organizational knowledge. According to Choi et al. (2006), knowledge has the capability to enhance firm's value, when it is appropriately produced and disseminated all over the organization. Organizations can efficiently identify, accumulate, disseminate, and apply the knowledge for achieving sustainable competitive advantage (Sarkindaji et al., 2014). They can also enrich their performance standards through the efficient practices of knowledge management (KM) (Sarkindaji et al., 2014). This is how, KM has got the strategic importance in organizations to be succeeded in the global business competition.

Research investigated the relationship between knowledge management and organizational performance in different sectors, for example, in education (Zwain et al., 2012), construction (Yusof and Bakar, 2012), small and medium enterprises (Gholami et al., 2013), high tech (Yang et al., 2012), telecommunication (Suraj & Ajiferuke, 2013), and supplier relationship (Tseng, 2014). It is found out that knowledge management has significant and positive influence on the organizational performance (Ghalomi et

al., 2013; Fugate et al., 2009; Tseng, 2014). Kiessling et al. (2009) revealed that KM impacts firm's innovation, product improvement and employee development. Researchers reported that adoption of knowledge management in different industries is being widely recognised due to its imperative nature and significant impact on organizational efficiency (Yang et al., 2012; Tseng, 2014).

Higher educational institution, specifically, university is considered as a platform for researchers and learners to share ideas and experiences (Martin & Marion, 2005). These organizations are different from other organizations (Omerzel et al., 2011), because they are engaged in the business of generating and disseminating knowledge (Omerzel et al., 2011; Fullwood et al., 2013; Jolaee et al., 2014). In the individual level, modern lecturers are not only responsible for lesson delivery, but also for accumulating and enriching the knowledge. KM facilitates the academics to create new knowledge and process the collected one based on their requirements and students' capabilities (Bandyopadhyay et al., 2017). Supermane and Tahir (2018) stated the education system as an efficient medium of a country that can enrich its competitiveness. So, Bangladesh, like other countries, attempts to adapt with the global change through the transformation of its education system. Therefore, an effective effort on knowledge management practices in the university level and among the university lecturers is much needed as a foundation in transforming educational system along with globalization.

Although universities of Bangladesh are significantly contributing to the higher education of the country, still they have to go a long way to attain the level of excellence by ensuring the quality of education. Due to the importance of KM practices in the higher education institutions, particularly in universities, that are knowledge intensive organization, the aim of this study is to empirically examine the knowledge management practices. Specifically the objectives are to examine the extent of knowledge management practices in the universities of Bangladesh, and to identify the prevalent problems in the knowledge management practices in the universities of Bangladesh.

According to Lloria (2008), KM is a series of policies and guidelines to facilitate and enable creation, sharing and institutionalize knowledge to achieve firm's objectives. Ramayah et al. (2014) defined knowledge management as a process that involves collecting information, storing and retrieving, disseminating, sharing, using and applying knowledge. Becerra-Fernandez and Sabherwal (2010) defined knowledge management as performing the activities involved in discovering, capturing, sharing, and applying knowledge so as to enhance, in a cost-effective fashion, the impact of knowledge on the unit's goal achievement. A thorough review, of these processes in Bangladeshi higher education setting, has revealed the similarities to Becerra-Fernandez and Sabherwal's Knowledge Management Process (2010). Knowledge discovery, knowledge capture (accumulation), knowledge sharing, and knowledge application are four vital dimensions in Becerra-Fernandez and Sabherwal's Knowledge Management Process. Therefore, all the four dimensions of knowledge management from Becerra-Fernandez and Sabherwal's Knowledge Management Process Model were adopted as the gist of this study. Figure 1 shows the theoretical framework of this study.

Based on the theoretical framework, the dimensions of knowledge discovery, knowledge accumulation, knowledge sharing, and knowledge application contributed directly to knowledge management. The Becerra-Fernandez and Sabherwal's Knowledge Management Process is one of the most comprehensive description of the fundamental elements involved in the knowledge management model. The strength of this model is embracing from its complete information processing paradigm, which is almost unquestionably adaptable to knowledge-based content.

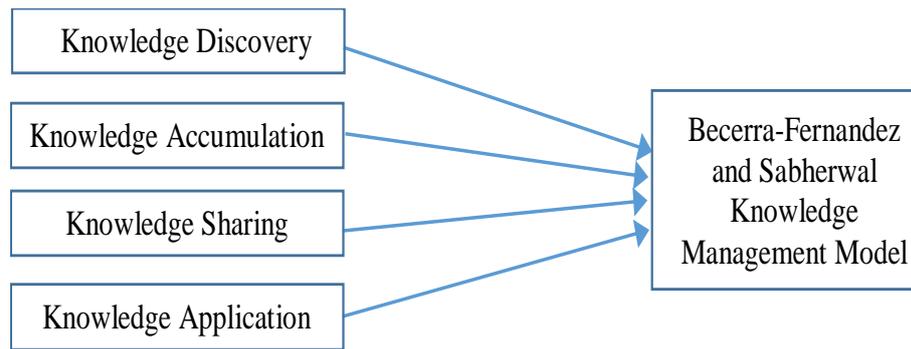


Figure 1. Theoretical Framework of the Study

2. Literature Review

Knowledge and Knowledge Management

Knowledge management is defined as a set of plans and strategies that facilitates knowledge creation, knowledge sharing, and knowledge application for attaining organizational goals (Lloria, 2008). It is a discipline for enhancing individual performance and organizational efficiency through the proper maintenance of existing and potential value of knowledge (Newman and Conrad, 2000). According to the Resource Based View, knowledge is the vital asset of organizations that results better performance when it is properly utilized (Yusof and Bakar, 2012). Gao *et al.* (2008) defined KM in the perspective of knowledge workers and stated that KM manages their functions by facilitating, motivating, leading, and supporting them and maintaining an adequate working environment. A simple definition of KM is given by Katiyar (2015), who defined it as a process of acquiring, sharing and applying the knowledge effectively in the organization. But the most feasible definition is given by Biasutti and El-Deghaidy (2012). They defined knowledge management as a process of integrating technology and social aspects of organization.

Many researchers identified the functions of KM processes and practices; for instance, knowledge creating, capturing, organizing, storing, disseminating and applying (Ramachandran *et al.*, 2013); knowledge acquiring, creating, storing, sharing, diffusing, developing and deploying (Mahmoudsalehi *et al.*, 2012); knowledge creation, acquisition, storage, dissemination (Mohayidin *et al.*, 2007); and knowledge assembly, sharing, integration, leverage, exploitation (Nielsen, 2006). Whatever the functions and/or steps of KM are, it is evident that for accomplishing sustainable competitive advantage, organizations are required to develop and incorporate sound KM strategy (Sarkindaji *et al.*, 2014). Hence, for assisting the practitioners, Newman and Conrad (2000) delivered a framework for characterizing the available tools of knowledge management.

Knowledge Discovery

Becerra-Fernandez and Sabherwal (2010) defined knowledge discovery as the development of new tacit or explicit knowledge from data and information or from the synthesis of prior knowledge. In this regard, identification of knowledge gap is fundamental for employees' success (Sarawanawong *et al.*, 2009). Thus, in the knowledge adoption function, knowledge identification means evaluation of core capabilities, recognizing strategic competencies, and determining the expertise level of each knowledge area (Zwain *et al.*, 2012).

Knowledge Accumulation

It is the process of retrieving all the explicit or tacit knowledge that belongs to people, artifacts, or organizational entities (Becerra-Fernandez and Sabherwal, 2010). Knowledge can be acquired and learned from both external and internal resources of

the organization. The external sources of knowledge are consultants, competitors, customers, suppliers, and prior employers of the organization's new employees (Becerra-Fernandez and Sabherwal, 2010). For acquiring knowledge from different sources, Ghalomi *et al.* (2013) listed the popular techniques, such as interviewing, laddering, process mapping, concept mapping, observing, educating and training. After acquiring the knowledge, they are to be stored, which requires involving technologies, like modern informational hardware/software, and working process for knowledge categorizing, coding, and indexing for the future use (Karadsheh *et al.*, 2009).

Knowledge Sharing

Knowledge sharing is the key success factor of the whole KM process (Ali *et al.*, 2014), and the process of exchanging or disseminating knowledge (Ghalomi *et al.*, 2013; Wang and Noe, 2010), in the form of data, ideas, experiences, or technology between people or organization (Wang and Noe, 2010). It is essential to share knowledge for assisting people, solving problems, developing ideas, or implanting plans and strategies (Amayah, 2013). In the context of higher educational institutions, knowledge sharing directly impacts the research output (Ali *et al.*, 2014), and actions relating to teaching profession (Ali *et al.*, 2014; Chu *et al.*, 2011). Therefore, Jolae *et al.* (2014) stressed on the knowledge sharing behaviour and intention, like trust, technology, rewards, organizational climate, incentives, subjective norm, and attitudes.

Knowledge Application

The challenge existed in the implementation of knowledge that is termed as 'actual utilization' of knowledge (Liao & Wu, 2009) in the right direction for attaining the goals. Mohapatra *et al.* (2016) stated that if this step of KM process fails, then the whole KM efforts will be unsuccessful or worthless. They added the KM process will be succeed when knowledge is applied properly. Ghalomi *et al.* (2013) viewed it as a decision that involves the use of knowledge for organizational efficiency. Bandyopadhyay *et al.* (2017) empirically observed that by the application of knowledge, lecturers developed interesting and valuable teaching and learning activities.

3. Research Method

This is a quantitative study using survey design. The targeted respondents of this study were the full time faculty members (lecturers) from the public and private universities of Bangladesh. The study targeted 10 public universities and 10 private universities for data collection purpose. A structured questionnaire was sent through email to the lecturers of the selected universities. The survey was conducted from 5th April to 17th April, 2019. Within the due time, a total of 120 responses were received, out of which 108 responses were considered for analysis due to the completeness and consistency of that responses. To be specific, lecturers from seventeen universities responded the survey, of which eleven were private university and the rest were public university.

A self-administered questionnaire was developed based on Becerra-Fernandez and Sabherwal's Knowledge Management Process (2010). First phase in the questionnaire focused on the demographic profiles which consists of gender, age, university name, department name, and designation. The second phase was meant to measure knowledge management practices consisting of four dimensions ranging from *knowledge discovery*, *knowledge accumulation*, *knowledge sharing*, and *knowledge application*. This phase comprised 18 close ended items pertaining the four dimensions of knowledge management. Five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) was used to measure the knowledge management practices of universities in Bangladesh. All the items of questionnaire were tested using Cronbach's alpha to ensure the reliability. The reliability test conducted showed the value of 0.835 that represents high consistency, because alpha value above 0.75 indicates high reliability of the instrument (Mertens, 2014).

4. Result and Discussion

A total of 108 responses of 17 universities of Bangladesh were utilized. Among them, 22.20 percent were female and 77.80 percent were male respondents. Data confirms that participation of male lecturers in the universities were higher than their counterparts. The analysis also shows that 85.20 percent of the respondents were between 25 and 35 years old, 13 percent of the respondents were between 36 and 45 years old, and 1.90 percent of the respondents were between 46 and 55 years old. The statistic indicates the availability of relatively young lecturers in the universities of Bangladesh. In addition, 44.44 percent respondents were lecturers, 32.41 percent were assistant professors, 16.67 percent were associate professors, and 6.48 percent were professors. In addition, majority of the respondents (64.81 percent) were from the private universities and rest of the respondents were from public universities.

The mean score for all the four knowledge management dimensions is calculated that shown in Table 1. The group mean score is 3.14. One out of the four knowledge management dimensions scored above the group mean score. The highest scoring dimension is knowledge accumulation ($M = 3.52$). On the other hand, knowledge discovery ($M = 3.11$), knowledge application ($M = 2.99$) and knowledge sharing ($M = 2.93$) have recorded mean scores below the group mean.

Table 1. The Interpretation of Mean Scores

Dimensions	Mean scores	Level
Knowledge Discovery	3.11	Moderate
Knowledge Accumulation	3.52	High
Knowledge Sharing	2.93	Moderate
Knowledge Application	2.99	Moderate

Notes: 00-2.49 = Low; 2.50-3.49 = Moderate; 3.50-5.00 = High
Source: Oxford and Burry-Stock (1995)

Based on the mean score interpretation (table 1), findings indicated a moderate level of knowledge management practices in the universities of Bangladesh. Among all the four knowledge management dimensions, a high level of knowledge accumulation is being practiced by the universities. However, a moderate level of knowledge discovery, knowledge application and knowledge sharing are being practiced.

In the dimension of knowledge discovery, as shown in Table 2, the respondents in the study mentioned that they get IT support for gathering and storing knowledge ($M = 3.52$). They also stated that their universities are properly equipped and staffed for accessing knowledge ($M = 3.31$), although lower mean scores are shown in strategies for accessing/updating knowledge ($M = 2.93$), and documentation and interaction for KM practices ($M = 2.69$) that indicated negative perception of respondents. In identifying knowledge accumulation activities, the universities are active, as the respondents pointed out, in integrating and refining the collected information ($M = 3.83$). Their universities also facilitates to collect information of senior colleagues' experiences ($M = 3.63$) and to gather information from other authorities/experts ($M = 3.43$). Furthermore, universities arrange dialogues with other institutions/universities ($M = 3.39$) and lecturers are willing about KM practices ($M = 3.33$).

The third dimension knowledge sharing scored the lowest mean ($M = 2.93$) compared to other three knowledge management dimensions. Three items of this dimension scored above the average mean. The highest scored item is the availability of infrastructures for sharing knowledge ($M = 3.41$), followed by regular knowledge sharing ($M = 3.20$) and allocation of resources for sharing knowledge ($M = 3.04$). However, there is negative perception on existence of intra-departmental 'community of practice' ($M = 2.74$), and rewards for sharing knowledge ($M = 2.28$).

Table 2. The Dimensions of Knowledge Management

Items	Mean (M)	SD
<i>Knowledge Discovery</i>		
Properly equipped and staffed for accessing knowledge	3.31	.903
IT support for gathering and storing knowledge	3.52	.981
Strategies for accessing/updating knowledge	2.93	1.074
Documentation and interaction for KM practices	2.69	1.020
<i>Average</i>	<i>3.11</i>	<i>0.995</i>
<i>Knowledge Accumulation</i>		
Gathers information from other authorities/experts	3.43	1.016
Collects information of senior colleagues' experiences	3.63	.991
Has dialogues with other institutions/universities etc.	3.39	1.066
Integrates and refines the collected information	3.83	.922
Lecturers are willing about KM practices	3.33	1.144
<i>Average</i>	<i>3.52</i>	<i>1.028</i>
<i>Knowledge Sharing</i>		
Availability of infrastructures for sharing knowledge	3.41	1.068
Allocates resources for sharing knowledge	3.04	1.175
Rewards for sharing knowledge	2.28	1.066
Knowledge sharing is regular	3.20	1.012
Existence of intra-departmental 'community of practice'	2.74	1.080
<i>Average</i>	<i>2.93</i>	<i>1.080</i>
<i>Knowledge Application</i>		
Lecturers use the acquired knowledge	3.63	.913
University uses artificial intelligence for solving problems	2.06	.994
University supports the application of knowledge	3.50	.981
Applied knowledge adds value to individual and organization	2.76	.985
<i>Average</i>	<i>2.99</i>	<i>0.968</i>
<i>Group mean</i>	<i>3.14</i>	<i>1.018</i>

Another important finding in table 2 is that respondents preferred to use the acquired knowledge (M = 3.63) and the university supports the application of knowledge (M = 3.50). Lower mean score in value addition of applied knowledge to individual and organization (M = 2.76) indicates the negative perception of respondents. Universities are reluctant to use artificial intelligence in decision making and problem solving, because the lowest mean score (M = 2.06) lies in this item.

5. Conclusions

This paper contributes in expanding the knowledge management practices in the context of universities of Bangladesh. The objective of the study was to empirically examine the knowledge management practices in the university level. Although universities are knowledge-based institutions, the group mean score indicated a moderate level of knowledge management practices exist in universities of Bangladesh.

The study findings show a moderate level of knowledge discovery practice in universities, where strategies for accessing/updating knowledge, and documentation and interaction for knowledge management practices are need to be taken care of. The findings also show that knowledge accumulation is the highest ranked dimension out of four. The group mean score indicates sufficient evidence of better condition in knowledge management practices. In knowledge application, the use of artificial intelligence in problem solving should be increased so that applied knowledge can add value in the individual and the organization level. However, based on lowest average mean score, the study findings conclude that knowledge sharing, particularly in intra-departmental 'community of practice' and rewards for sharing knowledge, need to be given

greater attention to improve the knowledge management practices in Bangladeshi universities.

It is hoped that the findings will help the universities to evaluate their status of knowledge management practices. Authorities could take suitable and necessary actions to minimize the inefficiencies. The study findings would also provide a clear view on how to enhance knowledge management practice in university level. This study empirically studied the Knowledge Management practices in the higher educational institutions, particularly in the university level of Bangladesh. In a global knowledge-based economy and competitive market, organizations are continuously looking to effectively manage organizational knowledge for gaining their sustainable market growth. Since universities are in the business of creating and disseminating knowledge, therefore creating a knowledge management practicing culture is necessary for the continuous developments in research output as well as society as a whole.

The study was only an attempt for the identification of the dimensions and items of knowledge management process. This study will lead the future research, specifically, with more sample size from a large number of higher educational institutions. The future research will investigate the impact/role of knowledge management on the university performance with the utilization of SEM Model.

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