The Impact of Knowledge Management Process on Job Satisfaction and Employee Retention

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ABSTRACT

Knowledge management has become a vital element in today's extremely competitive, uncertain, and quickly changing environment. The method of acquiring expertise is knowledge management. In the highly competitive, volatile, and rapidly evolving market climate, knowledge management has become crucial. The goal line of this study is to measure the effect of knowledge management processes (acquisition, share, codification, creation, and retention of knowledge) on job satisfaction. Further, we examine the affiliation between job satisfaction and employee retention. A theoretical model is suggested based on connecting knowledge management processes, job satisfaction, and employee retention. The results of survey data gathered from 32pharmaceutical and chemical companies listed in the Dhaka Stock Exchange in Bangladesh are empirically checked with PLS-SEM (Structural Equation Modeling-Partially Least Square). The study finds that knowledge management processes have a significant and positive impact on job satisfaction. Also, job satisfaction is positively associated and highly significant with employee retention. The findings generated from this study would be a policy dialog to the human resource department, regulatory bodies, academicians, and policy-makers.

Keywords: Knowledge management, Job satisfaction, Employee retention, Knowledge acquisition, and Retention

1. INTRODUCTION:

"In today's highly competitive, volatile, and rapidly evolving world, knowledge management has become a critical element. Knowledge Management (KM) is the course of collecting experience, knowledge, and expertise, developing new skills, delivering job efficiency, promoting creativity, and developing client value (Gloet & Terziovski, 2004)." It provides an atmosphere conducive to experienced people to use their know-how and knowledge and to develop new knowledge. "On the basis of knowledge, the primary means of output are intangible; it focuses on human resources, e.g., the talents, experiences, abilities, enthusiasm for work, and how they use them for the organization's benefit (Crook *et al*., 2011)."

As information, skills, and intelligence are silent and individually based, the company cannot easily acquire and process them. In certain situations, this may be a management problem. Knowledge management is an information and knowledge resource-based central field of society, and the library has become a vital part of this area (Asogwa, 2012). Libraries are generally

accepted as knowledge organizations, which concentrate primarily on the selection, processing, and delivery of information and knowledge resources to various stakeholders (Huang, 2014). It is thus recognized as their key resource that information is a challenge in libraries for improving knowledge management practice and enabling information (AlRashdi & Srinivas, 2016; Babalhavaeji & Kermani, 2011). Research shows that the knowledge management processes with methods impact work satisfaction, which eventually enhances the retention of the employees.

Many previous studies have widely clarified that the positive or negative experience that an employee has in terms of job satisfaction (Spector, 1997) promotes organizational engagement and job success as final performance (Judge *et al.,* 2001; Spector, 1997). The history of work satisfaction was extensively analyzed, and several important factors such as job design, variety of skills, and task uncertainty were established (Glisson & Durick, 1988). Knowledge management problems were not, however, included among the variables that have been observed. While job satisfaction is the subject with the greatest research in the field of organizational comfortability (Appelbaum *et al.,* 2000; Spector, 1997), it was seldom approached from the information point of view. The paper discusses how knowledge management functions and methods affect employee satisfaction with their jobs and improve employee retention with a view to bridging this gap in the literature.

The literature has been very rarely discussed about the outcome of knowledge management processes on job satisfaction and retention (Kianto *et al.,* 2016; Obeidat *et al.,* 2016; Singh & Sharma, 2011). This study is, however, important and special for a variety of reasons. Firstly, we discuss the knowledge management effect from both viewpoints and its behavior, as the effects of these two disciplines on work satisfaction metrics and the retention of employees in Bangladeshi libraries are not discussed. Secondly, this research is a new contribution as it focuses on the research in the Bangladesh Academic Libraries of knowledge management processes.

2. Review of Literature

2.1. Knowledge management processes - "KM is the process of accessing experience, knowledge, and expertise that generates new skills, enables job efficiency, encourages creativity, and creates value for the customer (Gloet & Terziovski, 2004). KM is usually a knowledge process comprising the development, sharing, acquisition, transfer, and implementation of knowledge with infrastructures, skills, and support for top management that facilitate and improve KM processes (Gold *et al.,* 2001; Lee & Choi, 2003). Existing KM literature divided the KM phase into six parts: the acquisition of knowledge, knowledge exchange, the development of knowledge, knowledge encoding, the application of knowledge, and the preservation of knowledge (Alavi & Leidner, 2001; Lin *et al.,* 2011; Nonaka, 2020). These types of information processes are, however, intertwined cyclically. This paper therefore proposes to classify KM processes into five distinct categories- acquisition of knowledge, knowledge sharing, creation of knowledge, codification of knowledge, and retention of knowledge. The following are briefly explained in these five KM processes."

Knowledge acquisition is the first step in the KM process. This means the search, recognition, selection, compilation, organization, and mapping of knowledge/ information (Pinho *et al.,* 2012). Tiwana, (2002) described the development and formation of understanding, skills, and relationships as know-how acquisition. Choo, (2003) stated that "The generation or acquisition of knowledge is characterized as activities that increase the inventory of corporate knowledge."Lopez & Esteves, (2013) claim that the acquisition of expertise will allow employees to be more empowered and dedicated to their job satisfaction across an organization's external and intern networks. The highly established practice of information acquisition is characteristic, for example, of client feedback systems, data mining, business intelligence, and collaboration with collaborators and research institutions.

"Tacit knowledge is human knowledge that is communicated in social interaction. While some tacit information can be codified, much remains implicit as

the only way to express it is through face-to-face contact (Nonaka, 2020). By disseminating and utilizing what is already learned, the capacity of information is enhanced. In Lee *et al*. (2005), knowledge sharing is characterized as a means of promoting knowledge dissemination to make the working process efficient and knowledge-intensive, as knowledge workers are collecting the knowledge needed from several sources and verifying their integration for successfully improving their output and complete the work done by employees. Organizations should, therefore, facilitate daily face-to-face communication and the production of common learning experiences and create a culture of information sharing (Carpenter & Rudge, 2003; Dalkir, 2013; Nonaka, 2020). Informal contact, brain storming, mentoring, and coaching (Scharmer, 2001) are part of the information-sharing activities."

Obeidat *et al*. (2016) noted a close connection between the inclinations for knowledge-sharing in service organizations and individual success at work; it strengthens their capacity to produce new ideas and develop new ideas when workers are empowered to share knowledge across organizations. Kianto *et al*. (2016) noted the strong correlation between information sharing and employee satisfaction and increased job performance in employees. The sharing and management of knowledge are thus required for all organizations, particularly as knowledge is the main component of the services provided (Al Rashdi & Srinivas, 2016).

Hansen *et al*. (1999) proposed that organizations should concentrate on either the strategy for personalization or codification and argued that focusing on one method is more important than sharing resources in the two ways. "Powell & Ambrosini, (2012) claimed that information is passed by direct communication with a person within the perspective of the social network approach, while the codification approach requires individuals to log their information and knowledge-gathering into a searchable electronic KM system allowing employees to access the knowledge base without being able to know or meet the knowledge provider." Information development refers to the capacity of an organization, from goods, technical processes to management practice, to generate new or useful ideas and solutions for different

aspects of its organizational activities (Kianto *et al*., 2016; Nonaka, 2020). "Awareness is created by understanding and innovating an organization and its members." Information-building organizations create future information and self-transcendence in order to generate fundamentally new perspectives (Scharmer, 2001) and to facilitate creativity and the production of ideas at all levels.

Finally, the preservation of skills relates to the practices related to staff attrition management and the related loss of experience-a crucial strategic resource (Kianto *et al*., 2016). When the staff leaves the company due to unfulfilled jobs, specialist information can be lost (Talukder *et al*., 2014). With the retirement of baby boomers, it is much more pressing to recruit and retain the best workers in the acquisition of expertise.

2.2. Job Satisfaction - "Job satisfaction can be described, according to Spector, as the degree of which people are contented or dissatisfied with their work." Satisfaction in the workplace can help to achieve psychology at work (Robinson *et al*., 2003). The definition of job satisfaction arrays from (Fritzsche & Parrish, 2005) the worker's feelings about their job (Smith et al., 1969) to "The successful reaction to their task, arising from a connection between the real results and the desired results." "Job satisfaction is closely connected with organizational commitment (Currivan, 1999), work success (Irvine & Evans, 1995; Talukder *et al*., 2014), and organizational culture (Lund, 2003)." Few studies have, however, addressed KM processes in relation to job fulfillment and work efficiency (Almahamid *et al*., 2010; Köseoglu et al., 2010; Singh & Sharma, 2011). Furthermore, the effects of KM approaches have not been carefully examined on work satisfaction and efficiency.

2.3. Employee retention - "Several researchers have recommended that job satisfaction is positively connected to intention to stay (Light, 2004; Tanwar & Prasad, 2016)and negatively connected to intention to quit (Clark, 2001; Lum *et al*., 1998). Job satisfaction has steadily been found to affect employee retention. It designates how gratified an employee is with his/her existing job."Westlund & Hannon, (2008)found a momentous foreseeing relationship between the soft-

ware developers' turnover intents and nine aspects of job satisfaction: "(i) contingent rewards, (ii) promotion, (iii) supervision, (iv) pay, (v) operating conditions, (vi) co-workers, (vii) benefits, (viii) communication and (ix) the nature of work." "In one more study, Medina, (2012) originate that job satisfaction is contrary wise associated with turnover intention where organization culture moderates the magnitude of the relationship." Sub-group analyzes have shown that work satisfaction predicts younger employees' turnover intent more accurately. Furthermore, study conducted by Robinson *et al*. (2003) emphasis on standardization and ability problems, which decreased employee satisfaction and eventually urged workers to leave the company. The happiness of jobs is therefore directly linked to retention of employees.

3. The Research Model and Hypothesis

"While the past regarding job satisfaction has been studied extensively (Glisson & Durick, 1988), KM problems were not addressed by the many factors of job satisfaction." KM literature seldom deals through growing job satisfaction with the effect of KM on employee retention. As mentioned above, KM and employee satisfaction (Lee & Chang, 2007; Singh & Sharma, 2011; Talukder *et al*., 2014) are a short-coming in current literature. Recently, 824 samples of a Finnish local government agency evaluated the connection between KM processes and job satisfaction. "They found that KM processes have a strong effect on work satisfactoriness, as exchanging information within an enterprise seems to be a significant KM process that improves a person's job satisfaction. In the Taiwan electronic wire and cable community, Lee & Chang, (2007) examined the relationship between employee satisfaction and KM. The findings of their analysis have shown a strong association between work satisfaction and KM. Singh & Sharma, (2011) conducted detailed research in Indian telecom industries, and noted that KM is positively related to the satisfaction of their employees. Almahamid *et al*. (2010) demonstrated the important effect on employee satisfaction of information sharing in a Jordanian institution. Köseoglu *et al*. (2010) have noted that 154 five star hotel workers in Turkey have an important partnership between KM (information sharing and knowledge transfer). KM processes have

working environment context characteristics that can enrich the job and boost job satisfaction (Morgeson & Humphrey, 2006)."Organizational KM processes allow workers in an information-intensive environment to gain mutual understanding and benefit out of expertise (Mohrman *et al*., 2002). "Knowledge acquisition involves access to new knowledge that improves efficiency in carrying out an individual's tasks, and knowledge sharing involves sharing acquired knowledge among employees and enriching employees' social needs to improve job satisfaction and increase job performance. Knowledge-creation processes enable individuals to participate in the planning and design of activities, utilizing their creativity. Knowledge retention increases the sense of recognition and appreciation of the employee because it is based on recognizing the value of the individual's expert knowledge. Therefore, we assume that employees will be more satisfied with their jobs relative to the level that they practice KM processes in their working environment." This discussion can be divided into five specific hypotheses:

H1. Knowledge acquisition has a positive effect on job satisfaction.
H2. Knowledge sharing has a positive effect on job satisfaction.
H3. Knowledge creation has a positive effect on job satisfaction.
H4. Knowledge codification has a positive effect on job satisfaction.
H5. Knowledge retention has a positive effect on job satisfaction.

Fig 1 displays the study model. This paper argues that the five dimensions of KM-acquiring knowledge, generating knowledge, exchanging knowledge, retaining knowledge, social networks, codifying knowledge, and individualizing- enhance employee satisfaction probabilities. The happiness in jobs, in turn, is connected to high employee retention (Shaikh *et al*., 2012; Springer, 2011). Kianto *et al*. (2016) agreed on the positive association with job satisfaction and employee retention, but they did not prove this impact in their research. We are assuming that:

H6. Job satisfaction has a positive effect on employee retention.

4. METHODOLOGY:

4.1. Measurement Instruments - "For ensuring the legitimacy of the constructs, preliminary studies (Kianto *et al.*, 2016; Obeidat *et al.*, 2016) have provided measurement items for the latent variables in the proposed model." **Table 1** lists the objects in each construct and its sources.

Table 1: Constructs and its sources

Constructs	Sources
Knowledge acquisition	(Henttonen *et al.*, 2016; Kianto *et al.*, 2016; Obeidat *et al.*, 2016)
Knowledge sharing	(Henttonen *et al.*, 2016; Kianto *et al.*, 2016; Obeidat *et al.*, 2016)
Knowledge creation	(Henttonen *et al.*, 2016; Kianto *et al.*, 2016; Obeidat *et al.*, 2016)
Knowledge codification	(Kianto *et al.*, 2016; Obeidat *et al.*, 2016)
Knowledge retention	(Henttonen *et al.*, 2016; Kianto *et al.*, 2016)
Job satisfaction	(Kianto *et al.*, 2016)
Employee retention	(Tanwar & Prasad, 2016)

4.2. Questionnaire Design and Data Collection - A structured-questionnaire employing a convenient sampling approach was used to collect the data from all listed pharmaceuticals of the Dhaka Stock Exchange (DSE) in Bangladesh (Rahman *et al.*, 2020). We sent more than 250 questionnaires to the company. But finally, 203 responses are considered for this study in the analysis section. Some objects have been reworded to enhance reading and understanding. Part A of the questionnaire includes demographic details on age, gender, education. Part B contains questions for the various components used in the proposed research model, shown in **Fig 1** and protected by a 7-point scale of Likert ranging from (1) to (7) "Strongly Disagree" to "Strongly Agree" (Alshibly *et al.*, 2017; Bao *et al.*, 2017; Hoque, 2016).

4.3. Data Analysis - In the test and validation of the proposed model and the relation of hypotheses in the research model, "the Partial Least Squares (PLS)" approach was employed as the statistical analysis technique based on the structural equation model (SEM). SEM is an agreed model used to assess the validity of scientific data theories (Götz *et al.*, 2010).

SEM has been used primarily in the industry (Richter *et al.*, 2016) and marketing (Hair *et al.*, 2011) and became a common information system research analysis technique (Rana *et al.*, 2013). For statistical analysis, the R programming software, particularly the "semPLS" package, has been used.

5. RESULTS AND DISCUSSION:

5.1. Demographic Profile of Respondents - Table 2 displays the populations' demographic characteristics. Of the 203 participants, 80% were male, and 20% female. The majority of respondents (40%) were within the ages of 40 and 50, and 33% held a master's degree.

5.2. Measurement Model - "An analysis of internal reliability, convergent validity, and divergent validity evaluated the measurement model (Hair *et al.*, 2011)." The durability of the structures was assessed using Cronbach Alpha (α) and composite reliability (CR). "To confirm the internal reliability of the analysis, α and the CR of each build should exceed 0.70 (Hair *et al.*, 2011)." As displayed in **Table 3**, the values of the Cronbach Alpha (α) ranged between 0.829 and 0.950, and the values of CR ranged from 0.844 to 0.952, suggesting high internal reliability. For the assessment of convergent validity, the average extracted variance (AVE) and object loadings were used (Fornell & Larcker, 1981). "To test discriminating validity (Henseler *et al.*, 2015), regarding AVE the square root and a cross-loading matrix were used. Convergent validity is indicated by an average variance (AVE) and item loading of 0.50 or higher (Fornell & Larcker, 1981). As exposed in **Table 3**, the item loads ranged from 0.601 to 0. 870, with a mean excess of the recommended threshold from 0.537 to 0.757. Consequently, this analysis met the condition of the convergent legitimacy of the measuring tools."

The discrimination was measured by the square root of the average extracted variance and by the cross-charging matrix and HTMT (Henseler *et al.*, 2015). "The square root of the average variance derived from each construct is greater than its connection to the other structures, as displayed in **Table 4**. This suggests that the quality of the data has been discriminated against (Henseler et al., 2015). Similarly, Heterotrait-

Monotrait (HTMT) measures the average ratio of inter-structural correlations of indicators, separated by the correlation of indicators in the same framework (Henseler *et al.*, 2015)." The literature suggests a maximum threshold of 0.9. **Table 5** in the HTMT matrix demonstrates the satisfactory discrimination value of values lower than 0.9. Both buildings are below the mark, so their validity is appropriate.

Table 2: Respondent Demographics

Descriptor		Frequency	Percentage (%)
Gender	Male	162	80%
	Female	41	20%
Age	Less than 30	8	4%
	30-40	28	14%
	40-50	81	40%
	50-60	47	23%
	More than 60	39	19%
Educational qualification	Below bachelor	18	9%
	Bachelor	61	30%
	Masters	67	33%
	PhD	43	21%
	Others	14	7%

Table 3: Measurement Model

Constructs	Items	Loadings	Cronbach's alpha	CR	AVE
Job satisfaction	JS1	.915	0.950	0.952	0.870
	JS2	.942			
	JS3	.849			
Employee retention	ER1	.878	0.904	0.912	0.677
	ER2	.934			
	ER3	.824			
	ER4	.785			
	ER5	.641			
Knowledge acquisition	KA1	.594	0.912	0.909	0.646
	KA2	.543			
	KA3	.630			
Knowledge retention	KR1	.919	0.932	0.933	0.824
	KR2	.958			
	KR3	.841			
Knowledge codification	KCD1	.728	0.829	0.833	0.601
	KCD2	.749			
	KCD3	.670			
	KCD4	.750			
	KCD5	.636			
Knowledge sharing	KS1	.675	0.851	0.844	0.737
	KS2	.664			
	KS3	.576			
	KS4	.677			
	KS5	.757			
	KS6	.645			
	KS7	.604			
Knowledge creation	KC1	.568	0.853	0.855	0.726

KC2	.750	
KC3	.698	
KC4	.730	
KC5	.538	
KC6	.609	
KC7	.606	
KC8	.706	

Table 4: Correlation matrix and the square root of the AVE

	JS	ER	KS	KCD	KR	KA	KC
JS	**0.933**						
ER	0.323***	**0.823**					
KS	0.581***	0.357***	**0.661**				
KCD	0.623***	0.251**	0.430***	**0.708**			
KR	0.512***	0.285***	0.622***	0.387***	**0.908**		
KA	0.810***	0.430***	0.581***	0.676***	0.736***	**0.588**	
KC	0.649	0.328	0.574	0.533	0.417	0.595	**0.653**

Note: * p < 0.050, ** p < 0.010, *** p < 0.001

Table 5: Heterotrait-Monotrait Ratio (HTMT)

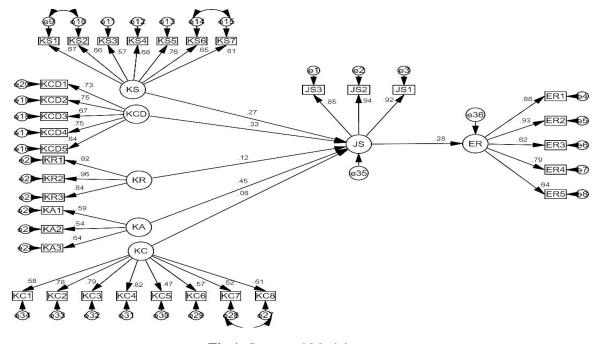|	JS	ER	KS	KCD	KR	KA	KC
JS							
ER	**0.331**						
KS	0.573	**0.369**					
KCD	0.619	0.255	**0.417**				
KR	0.533	0.310	0.627	**0.376**			
KA	0.826	0.441	0.761	0.836	**0.858**		
KC	0.632	0.314	0.550	0.830	0.415	**0.865**	

Fig 1: Structural Model.

5.3. Hypothesis Testing - "In order to define the path relations between structures within the research model, the structural model was developed. The test of the hypotheses with a 0.05 (p < 0.05) value was performed using R programming software. In order to compute the percentage of the variance, which is described with the independent variables within the structural model (Klarner *et al.*, 2013), the relationships between dependent and independent variables were evaluated with the Path Coefficient (β) and a t-statistic value greater than 1.96 at the meaning level of

5%. The results show that ties of the KS and JS (KS: t = 3.492, β = 0.292), the KR and JS (KR: t = 2.177, β = 0.126), the KCD and JS (KCD: t = 3.863, β = 0.312), the KC and JS (KC: t = 2.682, β = 0.182), the KA and JS (KA: t = 4.047, β = 0.370), and the JS and ER (JS: t = 3.691, β = 0.277) were highly significant." Thus, all hypotheses (H1, H2, H3, H4, H5, and H6) are supported across our study. **Table 6** provides brief observations on the hypotheses. Further, **Table 7** shows the model fit measures with cutoff criteria.

Table 6: Hypothesis testing

Hypotheses	Estimate	S.E.	C.R.	Decision
Knowledge Sharing ⇒ Job Satisfaction	0.292	0.084	3.492***	Supported
Knowledge Codification ⇒ Job Satisfaction	0.312	0.081	3.863***	Supported
Knowledge Retention ⇒ Job Satisfaction	0.126	0.058	2.177*	Supported
Knowledge Acquisition ⇒ Job Satisfaction	0.370	0.092	4.047***	Supported
Knowledge Creation ⇒ Job Satisfaction	0.182	0.068	2.682**	Supported
Job Satisfaction ⇒ Employee Retention	0.277	0.075	3.691***	Supported

Note: * p < 0.050, ** p < 0.010, *** p < 0.001

Table 7: Model Fit Measures

Measure	Estimate	Threshold	Interpretation	Cutoff Criteria*		
				Terrible	Acceptable	Excellent
CMIN	1410.492	--	--	--	--	--
DF	518.000	--	--	--	--	--
CMIN/DF	2.723	Between 1 and 3	Excellent	> 5	> 3	> 1
CFI	0.970	>0.95	Excellent	<0.90	<0.95	>0.95
SRMR	0.053	<0.08	Excellent	>0.10	>0.08	<0.08
RMSEA	0.052	<0.06	Excellent	>0.08	>0.06	<0.06

*Note: Hu & Bentler, (1999)recommend combinations of measures. Personally, I prefer a combination of CFI>0.95 and SRMR<0.08. To further solidify evidence, add the RMSEA<0.06.

The findings indicate that the knowledge management mechanism is essential and facilitates the satisfaction of most employees' intra-organization knowledge sharing. Generally, the most studied side of knowledge management, which seems well-founded from the point of view of working well, is possibly the exchange of information. Scholastic encouragement and promotion and a supportive working atmosphere seem to be strong contributors to job satisfaction and success. Kianto *et al.*, (2016) also endorsed these relationships, which found that the exchange of information and expertise positively affected the satis-

faction of various working groups of workers (general workers, middle management, and top managers. Further, the more the job satisfaction, and the greater the employee retention.

6. CONCLUSION AND IMPLICATIONS:

The findings of this research show that knowledge management has a effect on the job satisfaction, and employee retention significantly. Top managers in their academic libraries should also undertake knowledge management activities in order to improve their efficiency and health. The study thus offers useful guidance on how knowledge management in organ-

izations can be implemented. Knowledge management processes to assess the job satisfaction with employee retention in academic libraries have been incorporated as the key novelty of this research. Top managers should use knowledge sharing, knowledge creation, knowledge codification, knowledge retention; know acquisition factors to improve the good feelings and efficiency of their workers. Knowledge management researchers have used the exchange of information and the preservation of knowledge to assess employee attitudes, expectations and working behavior. The rest allow managers to organize their knowledge management processes to be accessible to all of the company, enabling workers to share their exercising and retaining information in an intelligible format for future use. In order to maximize job satisfaction, the company needs a clear, customized and organized strategy. In addition, for employee retention as the productivity job satisfaction is a strong predictor. High work output means new ideas and knowledge base growth.

The type of the analysis was transversal in particular. Employees who are happy with their employment may be more likely than those who don't care about their work to engage in education. A longitudinal study environment will be necessary to evaluate the direction of this effect. The sample size is another constraint of the analysis. A broader variety and larger sample size can be done in future studies.

7. ACKNOWLEDGEMENT:

8. CONFLICTS OF INTEREST:

Authors declare no conflicts of interest to publish it.

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