IMPACT OF KNOWLEDGE MANAGEMENT PRACTICES ON JOB SATISFACTION AND EMPLOYEE RETENTION IN BANKING AND IT INDUSTRIES IN SRI LANKA

Madhushani M.D.T.
Department of Industrial Management
University of Moratuwa, Sri Lanka

Mudalige, D. M.
Department of Industrial Management
University of Moratuwa, Sri Lanka
*darshanadm@uom.lk*

Abstract

Knowledge has become a fundamental asset whose successful application helps organizations to remain competitive while delivering creative products and services. Knowledge intensive firms are organizations that employ highly qualified professionals as the majority and the employees in these organizations are mainly engaged in knowledge intensive activities. IT and Banking industries have been identified as knowledge intensive industries following these conditions and they have been implementing different practices to manage knowledge. However, IT and banking industries are experiencing a high turnover rate. This study aims to identify how the use of knowledge management practices contributes towards employee retention in IT and banking industries. Quantitative approach was used for the research. The sample size was 179, comprising of 97 from IT industry and 82 from banking industry. The data was gathered using a structured questionnaire. There is a strong positive relationship between knowledge management practices and employee satisfaction and employee intention of retention. The study showed that the adoption of knowledge management practices in IT industry is higher than the banking industry. It found that the impact of knowledge management practices on employee retention is slightly higher in IT industry than banking industry. This concludes that, the impact of knowledge management practices on employee retention depends on the industry and retention is high when the adoption of knowledge management practices is high. The results give insights to policy makers and managers of IT and banking industries in developing knowledge management practices.

Key words: Knowledge Management Practices, Job Satisfaction, Employee Retention

Introduction

Out of many services involved in the service sector, IT services, R & D services, technical consultancy, legal, financial and management consultancy, and marketing communications can be identified as knowledge intensive services as they are expert companies that provide services to other companies and organizations (Toivonen, 2004). With the development of information and communication technology, some of those knowledge intensive services are being converged and two such major industries are IT and banking as shown by Figure 1.

Sri Lanka is emerging as a global IT destination in key domain areas such as Business Process Outsourcing (BPO), Software development, IT services and Knowledge Process Outsourcing (KPO). Sri Lanka is within the top 20 global outsourcing destinations (Kearney, 2014) whereas Kearney identifies Sri Lanka as "The Hidden Gem for Software Product Engineering and Financial Services Outsourcing" in the Competitive Benchmarking conducted for Sri Lankan Knowledge Services (Kearney, 2010).
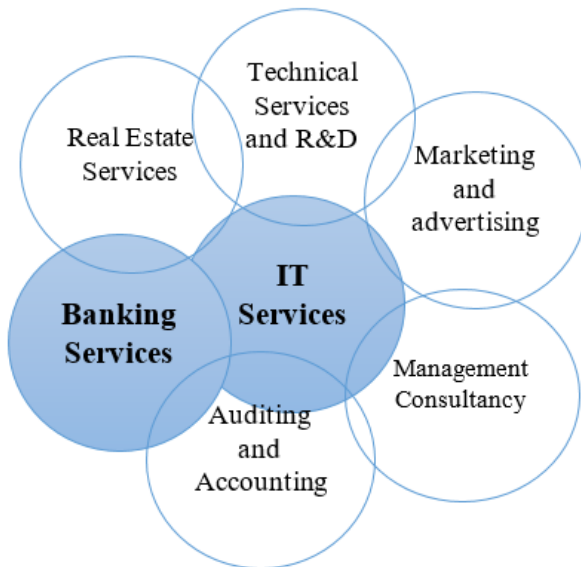
Figure 1: Convergence among the knowledge intensive services (Toivonen, 2004)

Over the past few years, there was a significant growth in Sri Lankan IT industry in terms of revenue and workforce. This generates diverse range of benefits to the country by creating job opportunities, increasing efficiency of markets and connecting communities to global value chains which in turn vastly contribute to

country's economic growth as well (SLASSCOM, 2014). Therefore it is evident that Information Technology industry plays a vital role in the growth of the Sri Lankan economy and in achieving this, contribution from software engineers is high as being the highest share of the ICT professionals.

According to Blackler (2002), knowledge intensive firms are set of organizations that employ highly qualified professionals as the majority and the employees in these organizations are mainly engaged in knowledge intensive activities. ICT sector is essentially a knowledge-based industry and technical knowledge and other complementary skills are essential preconditions for employability and career success in ICT jobs (ICTA, 2013). Software engineering is all about series/serious knowledge intensive activities such as design, develop, testing and implementation. It requires continuous decision making throughout the above processes and with the dynamic nature of work and domains they are involved in, it requires continuous leaning. When the projects or tasks which employees are performing gets larger, it becomes a group activity and then it requires individual knowledge to be shared and leveraged at group level as well as organization level (Rus ,et al, 2001). Similarly, banking industry is also one of the most knowledge intensive industries as it involves service exchange activities rather than product exchange activities (Cabrita et al, 2012). With the highly regulated, risky and volatile nature, the knowledge required for banking operations has become more complex than other industries (Shih et al, 2010). So, in today's knowledge based economy, ability to manage knowledge is the key to have a sustainable competitive advantage.

Knowledge has become a primary and fundamental asset whose successful application helps organizations to remain competitive while delivering creative products and services (Gupta et al, 2000). In making competitive differentiation within an industry, especially in service industries like banks and information technology, knowledge plays a key role as it is closely linked with innovation as well (Curado, 2008; Toivonen, 2004). Organizations start to realize the full value of their knowledge when the knowledge is being transferred among employees effectively (Gupta et al, 2000). Knowledge Intensive Firms (KIF) such as professional services or high-tech companies, differ from more routinized manufacturing or other service companies in the aspect of people management as managing knowledge workers poses many challenges. Knowledge workers are a relatively scarce resource with their high level of expertise and skills in the labor market and their nature of work often requires autonomy with what they do. With these challenges, KIF's need to have a proper knowledge management strategy to keep their scare resource with them while remain competitive in the industry.

Knowledge management is the conscious process of defining, structuring, retaining and sharing the knowledge and experience of employees within an organization (Gao et al, 2018). Some examples of such knowledge management

processes are tutoring, training, expertise location, documentations, guides, forums, intranets and collaboration environments. With the availability of high level of competition and more employment opportunities in the labor market, employee turnover rate in both these sectors; IT and private banking sector is quite high in Sri Lanka as they change their jobs so frequently. Most of the time, employees work in one company for very few years and then shift to another company, either within the same industry, or another industry. Employee turnover rates in ICT workforce, reported by three workforce surveys have been fluctuated considerably, rising from 6.6% in 2004 to 13% in 2006 and subsequently coming down to 7% in 2009 (ICTA, 2013). This is relatively a high turnover rate in an industry which ultimately leads to low company performance and less competitiveness in the industry.

One of the major reasons for this turnover can be identified as the job dissatisfaction of employees (Beames, 2001). When the employees are not satisfied with their jobs, they lose the emotional attachment towards the job and the organization and tend to leave the organization. The following figure shows most noticeable intentions to leave the organization in the IT industry. As Figure 3 shows, only 6% of employees are satisfied with the current job. Others have different intention to leave the organization due to various reasons such as personal commitments, higher education, looking for better offer from another IT company and looking for foreign opportunities.
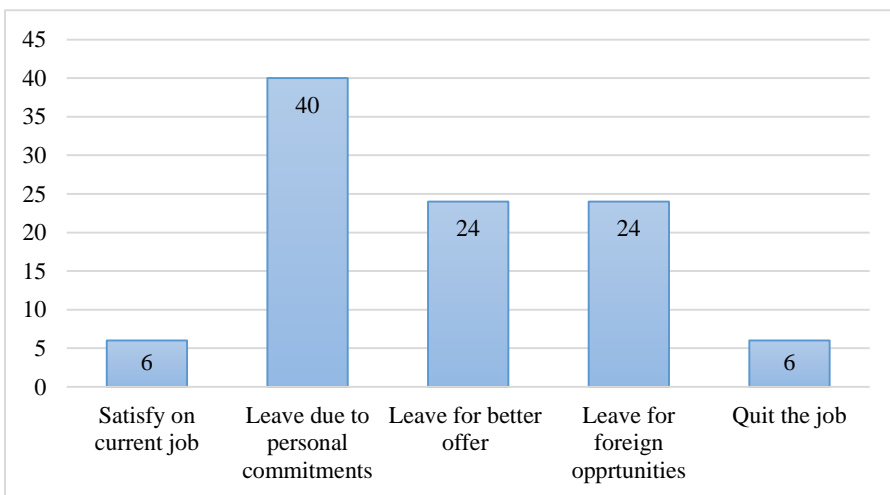
Figure 2: Intention to leave

As same with the IT sector, employee turnover in private banking sector is also particularly high due to many reasons. Wijesinghe and Athauda (2011) pointed out that in the year 2010, employee turnover in the private banking sector accounted

for as high as 93% of the total bank employee turnover due to less perceived job satisfaction. Furthermore, Rajapaksha, (2015) highlighted that employee turnover in Sri Lankan banking sector is quite high due to the increased competition in the market. What many employees do is, obtain necessary experiences from one bank and then join with another bank as the competitive banks are pleased to recruit employees with banking experiences (Rajapaksha, 2015). Therefore, it is evident that Sri Lankan IT and private banking sector has a major challenge in terms of less employee retention and it is mainly due to high job dissatisfaction with the current job.

Job dissatisfaction among employees can be due to many reasons such as availability of career development opportunities, employee autonomy, competitiveness and innovativeness of the organization, organization structure, management practices, working conditions, salary model, and etc (Beames, 2003). The impact of many of these factors towards job dissatisfaction may be able to minimize through proper knowledge management practices which may contribute to increased job satisfaction and thereby increased affective commitment towards the firm. Higher job satisfaction leads to higher employee motivation and less workplace stress which eventually increase employee retention in the company. Therefore, this study aims to assess the relationship between knowledge management practices and employee retention in IT and banking industries. This research will assess the knowledge management practices that have been adopted by IT and Banking industries and the impact of knowledge management practices on employee job satisfaction and retention.

There is a lack of empirical evidences from the literature about a comparative study on the impact of knowledge management practices on employee retention. It can provide practical recommendations on how organizations in these industries can maximize their employees' retention rate by proper handling of knowledge management practices and thereby increase employee job satisfaction. This will cause to increase employee motivation and reduce workplace stress so that organizations will be more innovative and competitive within the industry. Also this research will contribute to fulfill the gap of a comparative study on knowledge management practices and employee retention in Sri Lankan literature with an empirical novelty.

Next section will present the literature review regarding the study and with the facts from the literature, it will continue to the next section which is the methodology. It presents the conceptual diagram of the study with derived hypothesis and operationalization for the study. Then research outcomes will be discussed.

Literature Review

Knowledge and Knowledge Management

Knowledge is increasingly becoming the key competitive differentiator in today's knowledge based economy (Curado, 2008) as it is the principal source of value creation which is rare and imperfectly imitable (Alavi & Leidner, 2001). Different taxonomies of knowledge have been expressed in the literature covering different aspects such as what is knowledge and some categorizations of knowledge. Knowledge is information that has been combined with context, experience, interpretation, and reflection. It is a highly-valued form of information that can be used in applying for decision making process (Davenport, Long, & Beers, 1997). Davenport and Prusak (1998) define knowledge as a "fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information". Knowledge involves the processing, creation, or use of information in the mind of the individual (Kirchner as cited in Mårtensson, 2000). Understanding different types of knowledge is important to determine how that knowledge can be created and shared. With the assumption of knowledge is created through conversion between tacit and explicit knowledge, Nonaka (1994) identified four modes of knowledge conversions: socialization, combination, externalization and internalization.

Robertson and Hammersley, (2000) posit that knowledge intensive firms should take more care about knowledge management practices because managing and retaining knowledge workers are quite challenging because their high levels of expertise and skills are valuable and a scarce resource in the labor market. In addition to that, the nature of the work of knowledge workers requires considerable amount of autonomy than other types of workers. They demand responsibilities, assignments and opportunities for advancement while participating in decision making (Drucker, 1992). In order to retain employees with these characteristics, it requires carefully managed knowledge management practices within knowledge intensive firms (Robertson & Hammersley, 2000).

Cultural changes within organizations, new management practices, management commitment and technological support is required to facilitate knowledge creation, sharing and learning within an organization (Gupta et al, 2000). When organizations values employee learning and innovations, and implement proper incentives and reward systems, people tend to collaborate more and keep positive attitudes of knowledge management. This will create free flow of knowledge within organization and among employees which directs to better knowledge management (Paul & Anantharaman, 2004). Supportive organization culture allows employees to

try things, to fail, to learn, and to try again. If the culture unduly penalizes failure, its success will be minimal (Bontis, 1998).

Organizations use numerous ways to reward and appreciate employees who attempt to create and share their knowledge with others and show willingness to search for and use knowledge created and documented by others (Paul & Anantharaman, 2004). Development oriented appraisal system is one such method used widely in knowledge intensive firms and development-oriented appraisal system contributes to employee commitment towards organizations as well. When the appraisal systems incorporate informal approach and truly focus on development of individuals, employees get chances to grow and might prompt him or her to contribute more to the company's goals by sharing their developed knowledge with others (Paul & Anantharaman, 2004).

Managing knowledge workers are quite challenging since they are having high levels of expertise and skills and the complex nature of the work they perform require free and autonomous environment (Robertson & Hammersley, 2000). Knowledge workers are more satisfied when they can realize continuous professional development in their career. With the competitive and fast changing nature in various disciplines, to retain at the forefront, knowledge workers need to be up to date with any developments in respective disciplines and aware of their professional developments. Conducting comprehensive training and development programs elaborates encouragement from organization management and support for professional development which in turn creates self-directed environment within the organization (Robertson & Hammersley, 2000). Paul and Anantharaman (2004) discovered that there is a significant impact from comprehensive training programs to the organization and specially, in the field of software development, it requires continuous learning because of rapid change in technology.

Knowledge management helps organizations to find, select, organize, disseminate and transfer important information and expertise and to facilitate this process, existence of strong technological infrastructure plays a critical role. Customized technological infrastructure for organizations based on their needs ensure successful implementation of knowledge management within the organization (Gupta et al, 2000). As Paul and Anantharaman (2004) explained in their study, knowledge management requires the use of software technology, but it is not always able to achieve the planned level of knowledge creation and sharing through integration of knowledge subsystems and tools. So, it is not recommended to focus only on technology but most of the time, attention goes to people component along with technologies (Paul & Anantharaman, 2004).

Knowledge Management in the IT Industry

According to ICTA (2013), 21% of ICT workforce is software engineers and software engineering is all about series/serious knowledge intensive activities such as design, develop, testing and implementation. Within this process, it is difficult for an individual to make decisions and work alone but it requires collective decision making and collective effort to make it successful. So, individual knowledge need to be shared continuously and use for better results (Rus et al,, 2001). This is where it emerges the requirement of knowledge management process in the discipline of software engineering.

In software development, two types of knowledge can be identified. Those can be identified as knowledge embedded in the products (artifacts) and Meta knowledge which is knowledge about products and processes. Out of these two types of knowledge, some artifacts already stored in electronic forms but most of other knowledge is tacit which resides in employees in forms of experiences, creativity, imagination and education. This fact creates a major challenge in software engineering to share and retain knowledge among employees and within the organization (Rus, Lindvall, & Sinha, 2001). So, Rus et al. (2001) identify motivation for knowledge management in software engineering as the need for capturing and sharing process and product knowledge, need for domain knowledge, need for acquiring knowledge about new knowledge, need for knowing who knows what, need for distance collaboration and need for sharing knowledge about local policies. With these motivations, Rus et al. (2001) points out creating a sharing culture, reward systems and leveraging employee's expertise other than using technological support with different systems and electronic media to better implement knowledge management in software engineering.

Bjørnson and Dingsøyr (2008) revealed one new development in the field of software engineering which is having implications for its knowledge management activities. That is, those IT companies which seek to have agile software development, will focus on knowledge management activities related to tacit knowledge while other IT companies which rely on traditional development methods such as waterfall processes will focus on explicit knowledge related activities. So, the development and use of knowledge repositories can be identified more valuable to companies which following traditional development processes. Both types of software companies require proper technological infrastructures within the organization to facilitate continuous sharing knowledge as well (Bjørnson & Dingsøyr, 2008). IT sector organizations had traditionally focused on using explicit knowledge. Somehow now they have understood the need of integrating both types of knowledge through various organizational processes, information systems, best practices, culture and norms (Gupta, Iyer, & Aronson, 2000).

Knowledge Management in Banking Industry

Knowledge management is an emerging discipline in banking industry as it promises to capitalize on organization's intellectual assets (Obalde, 2004). Banking industry provides knowledge based products and services different from manufacturing industries. According to Shih et al. (2010), with the financial liberalization and internationalization occurred over the years, banking industry went through noticeable changes in their business environment and increased the competition in the industry. So, to achieve sustainable operations and stay competitive, it required banking firms to pay more attention in managing knowledge and Intellectual capital. Ability to manage employees systematically to manage knowledge and experiences is the core competitiveness in the banking industry.

With highly regulated, risky, volatile, and market sensitive nature of banking operations, the knowledge required in banking industry is more complex than in most other industries. Therefore, the ability to create sophisticated skills to effectively manage risks and create profits is also a competitive advantage while those are catering to the Intellectual capital of the organization. To generate IC, systematic integration of knowledge is the key (Shih et al., 2010).

In the study conducted by Curado, (2008) on "Perceptions of knowledge management and intellectual capital in banking industry", it discusses about two knowledge management strategies; exploitation and exploration. In the exploration strategy, it focuses more on innovating and creating new knowledge while in exploitation strategy it talks more about leveraging and distribution of knowledge. The results of this study revealed that 56% of the participants witnessed the existence of exploitation knowledge management strategy and the rest agreed on the existence of exploration strategy in the banks that they are employed in. Knowledge management practices presented by the participants of the study were mainly related to use of diffusion channels, registration routines, internal systems and training and development (Curado, 2008).

Shih et al. (2010) found that the main knowledge creators in banking industry are cognitivists and connectivists. Cognitivists develop knowledge through absorption of new information and construct a solution to share the created knowledge. Cognitivists and connectivists are similar except that connectivists believe there is no predefined solution. Therefore, knowledge creation should focus on exchanging and sharing of information in banks.

Employee Turnover in IT and Banking Industries

According to Jinadasa and Wickramasinghe (2005), the job fit of IT knowledge workers in Sri Lankan IT industry is very low and only a 23% of respondent of the survey think that they are doing the right job according to their level of expectations. Moreover, findings about IT knowledge worker's turnover intentions reveals that 42% of the respondents were expecting to have a change in their current job while others having intentions such as leaving the country, changing the current filed and leaving due to personal commitments. Out of those who had decided to leave the company, only 6% were satisfied with the job. These figures explain that majority of the employees in IT industry is not satisfied with the job which create high turnover rate within the industry.

A study conducted on software professionals in India revealed that management practices such as employee friendly work environment, career development, comprehensive training and development oriented appraisals enhance the organizational commitment of employees and thereby increase retention rate (Paul & Anantharaman, 2004). Also, James and Mathew (2012) found that retention strategies like rewards and recognition, training and development, annual performance appraisals and flexible work time had a positive impact on employees' intention to stay in IT industry.

Employee turnover has a strong impact on organizations in any sector in terms of both voluntary and involuntary turnover. This challenge the management in relation to less productivity, losing competitiveness and increasing costs (Rajapaksha, 2015). It can see high labor turnover in banking sector as well due to increased competition and many employees do not stay long enough to be promoted to managerial levels (Rajapaksha, 2015; Weerasooriyaarachchi, 2016). According to Rajapaksha, (2015), employees are not satisfied with the promotional criteria used by the banking sector and this has become a major reason for trainee banking assistants to leave the organization.

In the year 2010, employee turnover of the private banking sector of Sri Lanka accounted for as high as 93% of the total bank employee turnover. James and Mathew (2012) identified employee retention at private banking sector Sri Lanka is directly influenced by the employee job satisfaction under three satisfaction categories such that general factors, intrinsic factors and extrinsic factors. Employee retention is more crucial in knowledge intensive firms and it requires extra effort with redefining their strategies and functions to encourage knowledge workers to retain in the firm (Curado, 2008; Mårtensson, 2000; Robertson & Hammersley, 2000). With the nature of the work knowledge workers are engaged with, they often require autonomy and

always seek for career development (James & Mathew, 2012; Jinadasa & Wickramasinghe, 2005; Robertson & Hammersley, 2000).
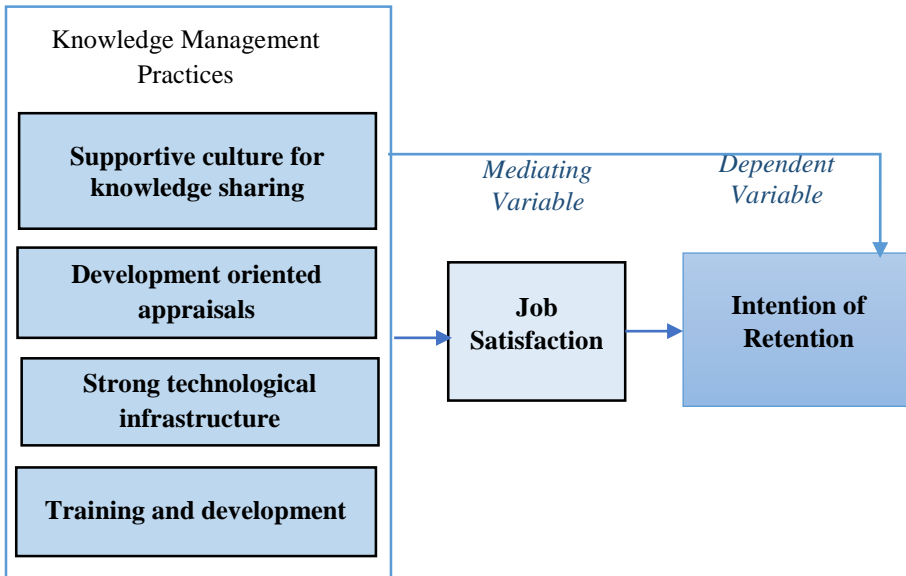
Employees with higher job satisfaction are less likely to quit from the existing job (Adikaram & Jayatilake, 2016; Beames, 2003; James & Mathew, 2012; Newman, Thanacoody, & Hui, 2011; Ongori, 2007; Paul & Anantharaman, 2004) Higher levels of job satisfaction leads to higher employee motivation, performance and lower workplace stress so that those positively affect to employee retention at the workplace (Beames, 2003).

Methodology

Higher levels of job satisfaction leads to higher employee motivation, performance and lower workplace stress so that those positively affect to employee retention at the workplace (Beames, 2001). History has identified that promoting employee autonomy through career development, managerial support and improved professional practice environment causes to increase job satisfaction and employee retention (James & Mathew, 2012; Jinadasa & Wickramasinghe, 2005).

Effective knowledge management practices within knowledge intensive firms contributes to higher level of employee satisfaction and commitment towards the organization (Gupta, Iyer, & Aronson, 2000; James & Mathew, 2012). The implementation of effective knowledge management practices creates professional and supportive environment within the organization which in turn employees can experience through individual career development with the management support. So, knowledge management practices such as effective training and development, development oriented appraisals, strong technological infrastructure and supportive culture that promotes creativity, autonomy and innovation positively affects to personal growth, operational autonomy and task achievement (Robertson & Hammersley, 2000; Paul & Anantharaman, 2004) With the increased personal growth, autonomy and task achievement, it increases employee satisfaction and retention. The above facts conclude that, proper knowledge management practices within an organization can increase the employee retention. Figure 3 reflects the conceptual model of the study. According to the labor force survey conducted by department of census and statistics (2016), number of employed persons in information and communication industry is 62000 while in financial and insurance industry group is 159,000.

Knowledge Management
Practices

**Supportive culture for
knowledge sharing**

*Mediating
Variable*

*Dependent
Variable*

**Development oriented
appraisals**

**Job
Satisfaction**

**Intention of
Retention**

**Strong technological
infrastructure**

Training and development

Figure 3: Conceptual Framework

Convenience sampling under the non-probability sampling was used as the sampling method as there was no proper sampling frame found. In total, 204 responses were received and once the filtering was done with job position, responses were reduced to 179. So, the sample size for this study is 179; 97 from IT industry and 82 from banking industry. The operationalization table is given next.

Table 1: Operationalization of the variables

Construct	Variable	Indicators	Source
Knowledge management practices	Supportive culture for KM	Promotion of creativity/innovation Close relationship between employees and supervisors/managers Availability of environment with openness and trust Employee empowerment Rewarding knowledge sharing Existence of fail safe environment	*Rus, Lindvall, & Sinha (2001)* *Gupta, Iyer, & Aronson (2000)*

Development oriented appraisals	Availability of personal development plans for employees periodically The focus on employee development in appraisal system Assignment of personal targets to learn new things Assignment of personal targets related to share knowledge. Chances of getting opportunities to contribute towards company goals	*Paul & Anantharaman (2004)*
Strong technological infrastructure	Usage level of modern technologies The impact of use of technologies in teamwork and collaboration Ability to organize, store information easily Ability to access relevant information easily Support from existing technologies towards knowledge sharing. Support from existing technologies towards innovation	*Rus, Lindvall, & Sinha (2001)* *Gupta, Iyer, & Aronson (2000)*
Training and development	Resource availability to provide training and development Availability of chances to attend trainings programs Allocation of time for training and development Availability of chances to attend workshops, seminars and conferences The ability to select which courses/training programs were of particular relevance to individuals' professional development. Ability to request customized trainings Availability of training on latest development and technologies	*Rus, Lindvall, & Sinha (2001)* *Gupta, Iyer, & Aronson (2000)*

Job satisfaction	Job satisfaction	Achievement – The feeling of accomplishment Responsibility –The freedom to use own judgments and decisions Advancement –The chances of advancement on the job Supervision – Managerial support and commitment Independence - The chance to work independently of others Ability Utilization - The chance to do something that make use of my abilities Compensation - My pay and the amount of work I do Co-workers - The way my co-workers get along with each other	Minnesota Satisfaction Questionnaire (Weiss et al., 1967)
Retention	Intention of retention	Employees' intention to quit the job in near future Employees' continuous thought of quitting the job Employees' intention of staying at the current job as long as possible Employees' intention towards the goodness of the job.	Beames (2001), *Wijesinghe & Athauda (2011)*

Analysis and Discussion

After the reliability and validity confirmed for each construct, this section presents the descriptive statistical analysis conducted for the same set of variables and constructs. The first objective of the study is to identify how the two industries have adopted knowledge management practices. With the use of the literature it identified four practices which use to manage knowledge with regard to knowledge intensive industries and Table 2 describes those with Technology as the use of strong technological infrastructure, Culture as supportive culture for knowledge management, Appraisal as development oriented appraisals and finally Training as training and development. KM represents all these knowledge management practices as one variable.

By just looking at the Mean columns of Table 2 under both industries, it can be seen that all the mean values are above 3 giving the idea that all the four knowledge

management practices have been implemented in both industries more than the average level.

Table 2: Descriptive Statistics Comparison between IT and Banking Industry

	IT		Banking	
	Mean	Std. Deviation	Mean	Std. Deviation
TECHNOLOGY	4.16	.652	3.88	.680
CULTURE	3.77	.735	3.43	.616
APPRAISAL	3.55	.860	3.37	.860
TRAINING	3.45	.848	3.55	.845
KM	3.73	.634	3.56	.587

It can be seen that, for Technology, Culture and Appraisal, and mean value in IT industry is higher than the banking industry. This describes that implementation of strong technological infrastructure, supportive culture for knowledge management and development oriented appraisals are bit higher in IT industry than the banking industry. It is interesting to see that, this pattern is otherwise for the practice training and development. It indicates that banking industry uses training and developments more than the IT industry. Overall, it can be seen that the implementation of knowledge management practices in IT industry is higher than the banking industry.

After conducting the regression analysis for each of the knowledge management practices separately for two industries, this section will analyze how knowledge management practices affect to job satisfaction and intention of retention of employees in both these industries together.
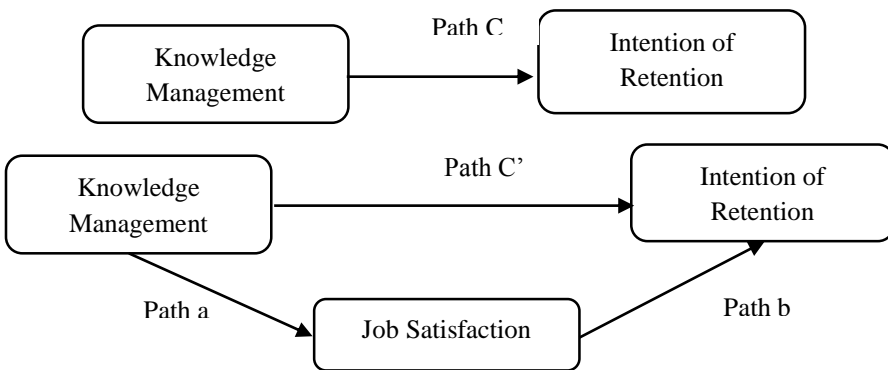
**Figure 4:** Regression Models with Knowledge Management Practices

ANOVA is significant for all three analyses as shown in the Table 3 indicating that all the three regression models predicts its dependent variable significantly well from independent variables. The third regression analysis accounting b and C'-paths shows the highest R2 which is 46.7% explaining that 46.7% of variation of the employee intention of retention from knowledge management practices with the mediation of job satisfaction.

Table 3: Regression Summary – Knowledge Management Practices

Path	Model Summary		ANOVA	Coefficients Unstandardized		Standardized	
	R	R2	Sig.	B	Std. Error	Beta	Sig.
C	.604[a]	.365	.000[b]	.797	.079	.604	.000
a	.672[a]	.452	.000[b]	.883	.073	.672	.000
b	.683[a]	.467	.000[b]	.433	.075	.431	.000
C'				.414	.098	.314	.000

With the significance of the coefficients related to all four paths, it determines that independent variables of each model contribute statistically significantly to the respective models. It can predict that, there is a strong positive relationship between knowledge management practices and employee intention of retention and knowledge management practices and employee job satisfaction. Also, job satisfaction strongly positively affects to the employee intention of retention. Also, job satisfaction positively affects to the employee intention of retention with p = .000 and B= .550 related to b-path regression analysis. With the significance of the Sobel test with p<0.050 and with the reduction of B value from .901 (regression related to C-path) to .350 (regression related to C' path) while both coefficients are significant, it can be concluded that job satisfaction mediates the relationship between knowledge management practices and intention of retention and it is a partial mediation. To achieve the last objective of this study; to compare how knowledge management practices impact on employee intention of retention, the moderation effect from the industry variable was used as per the following diagram. Three regression analyzes were run related to paths a, b and C with moderator and the results are shown below.
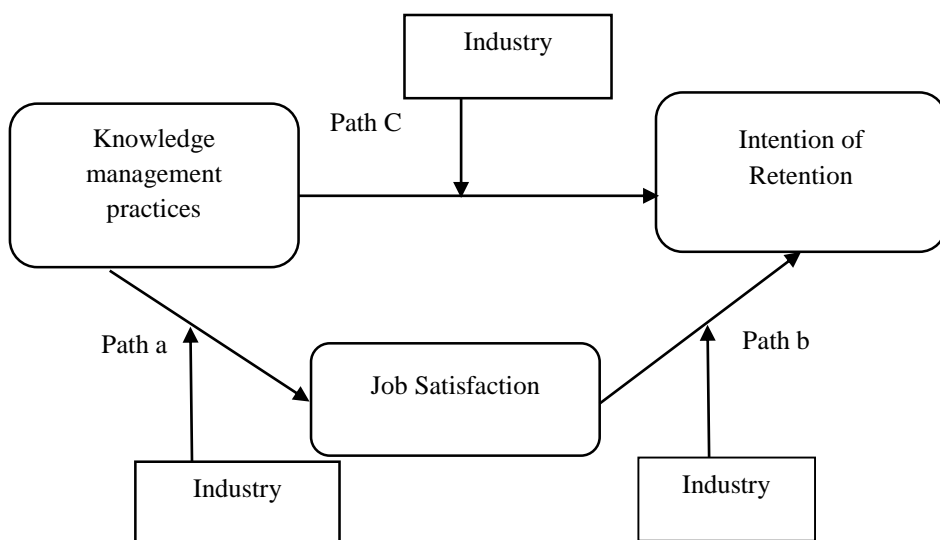
Figure 5: Regression Model with Moderation

Table 4 and Table 5 show the statistics related to model fit for Path C from the regression analysis. Here the predictor KM_IT represents the recorded variable generated out from the Industry variable with IT as reference category. ANOVA is significant with p=0.000 and 38.9% of variability of intention of retention is explained by the model related to C path.

Table 4: Model Summary for Regression related to Path-C

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.624ᵃ	.389	.382	.71601

a. Predictors: (Constant), KM_IT, KM

Table 5: ANOVA for Regression related to Path-C

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	57.427	2	28.713	56.00	.000ᵇ
	Residual	90.230	176	.513		
	Total	147.657	178			

a. Dependent Variable: RETEN

b. Predictors: (Constant), KM_IT, KM

Table 6 indicates that the KM_IT contributes significantly to the model as $p < 0.05$ which means that the industry act as a moderator to the relationship between knowledge management practices and employee intention of retention. Since the $B = 0.079$ which is a small positive number, it indicates that the effect of knowledge management practices on employee retention in IT industry is slightly higher than in the Banking industry.

Table 6: Coefficients for Regression related to Path-C

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	.396	.282		1.404	.162
KM	.726	.082	.551	8.830	.000
KM_IT	.079	.030	.163	2.618	.010

Regression - Path a

Under this regression analysis, it is going to find out whether there is a significant difference between the use of knowledge management practices and employee job satisfaction between two industries. From Table 7 and Table 8, it shows that the regression model is significant and 45.2% of variability of job satisfaction is explained by the model.

Table 7: Model Summary for Regression related to Path-a

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.672[a]	.452	.446	.67532
a. Predictors: (Constant), KM_IT, KM				

Table 8: ANOVA for Regression related to Path-a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	66.201	2	33.100	72.579	.000[b]
Residual	80.267	176	.456		
Total	146.468	178			
a. Dependent Variable: SATIS					
b. Predictors: (Constant), KM_IT, KM					

According to Table 9, since the KM_IT is having p = 0.982 under the significance column which exceeds the 0.05, it can conclude that the relationship between knowledge management practices and employee job satisfaction does not depend on the industry.

Table 9: Coefficients for Regression related to Path-a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	-.053	.266		-.201	.841
KM	.883	.078	.673	11.390	.000
KM_IT	-.001	.029	-.001	-.023	.982

a. Dependent Variable: SATIS

Regression - Path b

Table 10 and 11 in this section describes the regression statistics to find out the relationship between job satisfaction and employee retention with the industry moderation effect. The overall regression model is significant with p = 0.000 and R^2 = 44.3%. SATIS_IT is a recoded variable from the variable industry to measure the moderation effect.

Table 10: Model Summary for Regression related to Path-b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.665[a]	.443	.436	.68388

a. Predictors: (Constant), SATIS, SATIS_IT

Table 11: ANOVA for Regression related to Path-b

Model		Sum of Squares	df	F	Sig.
1	Regression	65.343	2	69.856	.000[b]
	Residual	82.314	176		
	Total	147.657	178		

a. Dependent Variable: RETEN
b. Predictors: (Constant), SATIS, SATIS_IT

As per Table 12, by looking at the Sig. column corresponding to SATIS_IT, it is significant with p = 0.000. This explains that the moderation exists and the relationship between job satisfaction and employee intention of retention.

Table 12: Coefficients for Regression related to Path-b

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.168	.181		6.45	.000
	SATIS_IT	.099	.032	.184	3.05	.003
	SATIS	.580	.060	.578	9.61	.000

a. Dependent Variable: RETEN

Results show that most hypotheses can be accepted with the analyses except two hypotheses. One is a sub hypothesis which relates to the relationship between strong technological infrastructure and intention of retention in banking industry. With the rejection of that hypothesis it can be concluded that, there is no positive relationship between the use of strong technological infrastructure and intention of retention when it comes to banking industry. But for IT industry, there is a relationship between use of strong technological infrastructure and intention of retention as the hypothesis **H₃** is in accepted state.

Analyses have concluded that **H₅** hypothesis also cannot be accepted giving the meaning that there is a difference in the impact of knowledge management practices on employee retention in the two industries. Under the findings and discussion section, it will discuss about the relationships that can be derived from these hypothesis in detail.

Findings show that, the industry does not moderate the relationship between knowledge management practices and job satisfaction. So this concludes that, knowledge management practices do increase the employee job satisfaction, but it does not depend on the industry. It behaves similarly between two industries. But findings prove that, industry moderates the relationship between knowledge management practices and employee intention of retention. Since the IT industry was selected as the reference category for the moderator, this explains that the effect of knowledge management practices on employee retention is bit higher than from the banking industry. So finally, it can say that, impact of knowledge management practices on employee retention depends on the industry.

Not only can the costs of selection, training, and alignment approach, 100% of the annual salary for the position being filled, but work interruption and loss of organizational memory can affect organization performance. Susana and Dora (2019) studied the relationship between knowledge management and retention intention in

employees involved in international assignments. Similar to this study, they found that KM increases the retention rate. Glenn, Carol and Jennifer (2019) confirm that KM is equally important for public sector employee retention. Many authors have studied Knowledge Sharing Orientation (KSO) of business on its performance. Knowledge sharing orientation is one of the important dimensions of knowledge management orientation and a positive relationship was reported.

Jennex (2008) defined measures of knowledge management outcomes in terms of organizational performance as enhancement of product and service quality; productivity; innovative ability and activity; competitive capacity and position in the market; proximity to customers and customer satisfaction; employee satisfaction; communication; knowledge sharing; transparency and employee retention. The employee retention dimension showed a positive relationship with knowledge management outcomes. Jennex (2008) proposed a conceptual model to investigate the relationships among Self-Directed Learning (SDL), Organizational Learning (OL), Knowledge Management Capability (KMC) and Organizational Performance (OP). Here OP included employee retention measurements also. They demonstrated the direct and indirect effect of SDL on OP from the perspectives of KMC and OL and argued that the existence of an organization depends on increased knowledge management capabilities during self-directed learning and organizational learning which affects organizational performance. Hence it is clear that the outcome of the study comply well with recent studies done on similar relationships.

Conclusion

This study aimed to identify the relationship between knowledge management practices and employee retention in IT and banking industries. There is a strong positive relationship between knowledge management practices and employee satisfaction and knowledge management practices and employee intention of retention. The study showed that the adoption of knowledge management practices in IT industry is higher than the banking industry. It found that the impact of knowledge management practices on employee retention is slightly higher in IT industry than banking industry. This concludes that, the impact of knowledge management practices on employee retention depends on the industry and retention is high when the adoption of knowledge management practices is high within the industry.

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