

Application Of Knowledge Management In University Library: A Survey On Its Effectiveness In Academic Libraries.

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Abstract:

Application of Knowledge Management help libraries transform into knowledge sharing institutions. KM can help libraries capture and share knowledge within the library. The primary objective of the present study was to identify the benefits of application of Knowledge Management (KM) in academic libraries of KSA. The researcher evaluated the impact of Knowledge Management application on quality information services, faculty research and publications, efficiency and productivity of academic libraries. The researcher implemented descriptive methodology, and the data was collected through electronic questionnaire. The target population of this study included university library located in KSA. Survey comprised total of 300 librarians. The items in the questionnaire were measured using 5 point Likert scale. The dependent variable was KM (Knowledge Management), Independent variables comprised of QIS (Quality Information Services) and FRP (faculty research and publications), EP (Efficiency and productivity of academic libraries). Reliability of the measurement scale was checked through Cronbach Alpha. The data was analyzed through regression analysis using SPSS. The researcher also identified the challenges of application of KM in academic libraries in KSA and suggested strategies to help universities embrace KM in academic libraries in KSA.

Keywords: *KM (Knowledge Management), QIS (Quality Information Services) and FRP (faculty research and publications), EP (Efficiency and productivity of academic libraries).*

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I. Introduction

An academic library support academic curriculum and teaching and research of the University faculty and students. knowledge management in libraries is to promote relationship between libraries, library user, to strengthen knowledge Academic libraries are established to select, acquire, process and organize book and non-book materials to serve academic institutions or community (Adeniyi and Oshinalle 2009). The success of academic libraries depends on their ability to utilize information and knowledge of its staff to better the needs of the academic community. The main objective of knowledge management in Academic Libraries is to ensure that the right information is delivered to the right person just in time, in order to take the most appropriate decision. Knowledge management in academic libraries focus on effective research and development of knowledge between staff Academic libraries can hence leverage the information and knowledge of their employees and users as well as the rapidly advancing IT to offer superior services. Academic libraries accelerates the knowledge sharing activity in any academic institution. Knowledge Sharing not only helps in development of students and faculty skills, competencies but effectively utilize available information and data for their improved performance. Academic Libraries can do Knowledge management by means of storage, retrieval systems and distribution networks This study is therefore intended to answer two research questions: (1) Does Knowledge Management application affects the quality information services, research and publications, efficiency and productivity of academic libraries. However, organizations face innumerable challenges in nurturing and managing knowledge. This study will discuss the challenges in application of KM and will also suggest strategies for successful application of KM in academic libraries. Knowledge management requires more effective methods of information handling, speedy transfer of information and linking of information with individuals and their activities. It demands library patron centered development of information systems and services and customization of information at the individual level. Libraries have been thought of as being expert at collecting and organizing published information

II. Literature Review

One of the aims of knowledge management in libraries is to promote the knowledge exchange among library staff enthusiasm and abilities for learning, making the knowledge most efficiently applied to business activities of the library, and rebuilding the library into a learning organization. (Shanhong, 2000). Gosh and Sambeker (2003) observed that to provide the right amount of information at the right time and to fulfill the mission of academic libraries and their parent institution. In other words inadequate provisions of budgetary allocation, lack of subject specialist, among others are the major obstacles. Thereby hindering provision of efficient information and internet based delivery to both faculty members and students. Yunnusa (1999) knowledge management has become the driving force of school development. Knowledge is stored in the individual brains or encoded in organizational processes, documents, products, services, facilities and systems. (Sharma 2004). The role of knowledge management in Libraries is an important element Barckley and Murray (2007). Lee (2000) pointed out that the knowledge and experiences of library staff are the intellectual assets of any library and should be valued and shared. According to Girard "Knowledge Management is the management process of creating, sharing and using organizational information and knowledge" (Girard, 2015). According to Suravee knowledge management can convert institutions into active learning institutions intended at stratify knowledge-based activities with institutional goals (Suravee & Michael, 2015). The utilizations of knowledge management have now attained to other fields, including Governmental units, Research and Development section (Mohapatra, Agrawal, & Satpathy, 2016). Knowledge management is a group of procedures that rule the making, broadcasting, and use of knowledge in an organization (Abu Bakar, Yusof, Tufail, & Virgiyanti, 2016). Regarding the knowledge management effectiveness, the factors produce high performance are knowledge management leadership, Processes, People, knowledge management Outcomes. (Abu Naser, Al Shobaki, & Abu Amuna, 2016). There is significant relationship between knowledge management and staff member's authorization knowledge management divine the aspects of employee empowerment in institutions of higher education (Hasani & Sheikhesmaeili, 2016). to the International competition and fast changes in technology demand more innovation depends on developing the skills of researchers and providing them with knowledge management support that accelerates (Beyerlein, et al., 2017). The primary mission of academic libraries is to foster the creation and sharing of new knowledge by acquiring and managing information and keeping up-to-date collections (Fister, 2015; Yeh & Walter, 2017). Understanding implementations of various models and strategies of KM is necessary to build and maintain knowledge sharing, which in return will positively impact multiple divisions, units, and sectors. Academic libraries are compelled to provide their patrons with cutting-edge services due to evolving user expectations and IT advancements. Researchers have recognized a variety of factors (e.g., leadership, knowledge management (KM), IT, culture and climate, formalization, capabilities, and client-employee interaction) that could influence performance of academic library (e.g., Cruz et al., 2020; Koloniari et al., 2018). However, building a knowledge base is fundamental to the provision of innovative services in academic libraries (Koloniari et al., 2018). Knowledge sharing (KS), a critical KM process, is believed to be a significant factor influencing innovation capabilities and innovation performance (e.g., Darroch & McNaughton, 2002; Kaewchur et al., 2013; Pacios, 2020; Yeşil et al., 2013). It presumably increases accessibility to new knowledge and improves decision making (Nonaka et al., 2006) and augments innovation capability (Sáenz et al., 2009). Despite a link between knowledge management and information management, some scientist attempted to distinguish knowledge management from teaching institutions and information management (Bedford, 2013). Masa'deh said The essential findings were linked to supported the hypotheses that were related to examine if there were relationships between the Knowledge management, represented by replacement measures, namely, knowledge identification, knowledge creation, knowledge collection, knowledge organizing, knowledge storage, knowledge dissemination and knowledge application (Masa'deh, Shannak, Maqableh, & Tarhini, 2017). The recognize usefulness is considerably connected with the assumption for knowledge creation and discovery, storage, and sharing. Moreover, the expectations for knowledge storage and sharing have a relationship with the perceived usefulness. Implicit and explicit knowledge, both considered as the very significant sources of knowledge of library, the administration of which ought to be finished with most extreme consideration (Larkey, 2019). Some of academic libraries employee' notice knowledge management differently, and the current literature proposes that there is no worldwide agreement of in what way and to what level knowledge management linked to information science. Regarding There are problems to knowledge management such as a shortage of policies, funding and time for research, reward mechanisms, frequent leadership changes, resources, data, a lack of a knowledge sharing culture and research repositories. Yet, research on application of KM in academic libraries and its influencing factors is scattered and mostly exploratory or conceptual (Brundy, 2015). Islam et al. (2017, p. 267) add, the extant literature is yet to provide empirical evidence linking KM with service innovation in academic libraries." This lack of research on KM leaves a critical shortfall for academic libraries (Yeh & Ramirez, 2016). Dean (1999), also states that academic libraries should be operated of such levels and relevance that can facilitate research especially when research as an important aspect of teaching is regarded as enquiries, searching for information need and drawing certain conclusion. To be successful in this environment, individual needs to

acquire new combination of skills (TFPL 1999). Bishop (2001) however argued that managing knowledge require a mix of technical, organizational and interpersonal skills. In making knowledge more accessible, it is useful to have knowledge of the organization customer service orientation and training skills (Koina 2003) application of KM improves library operational effectiveness, such as improved access to information resources (Islam, Siddike, Nowrin, & Naznin, 2015), and facilitates services innovation (Islam, Agarwal, & Ikeda, 2015b) through the enhancement of internal and external knowledge sharing (Islam, Siddike, et al., 2015) and the creation of new knowledge (Wen, 2005). Although “knowledge management has much to offer to the management of libraries and advancement of the LIS professions” (Martin, Hazeri, & Sarrafzadeh, 2006, p. 24), the adoption of KM by library and information science (LIS) professionals is very slow (Roknuzzaman & Umemoto, 2009). The ambiguity of the terminology, on the one hand, and the disagreement among LIS professionals regarding its relation to information management (IM), on the other, constitute significant barriers for their involvement in KM (Kebede, 2010; Roknuzzaman & Umemoto, 2009).

Objectives

The present study has the following objectives.

- 1.To identify the benefits of application of Knowledge Management (KM) in academic libraries.
- 2.To evaluate the impact of Knowledge Management application on quality information services ,research and publications, efficiency and productivity of academic libraries.
- 3.To identify challenges of application of KM in academic libraries
- 4.To suggest strategies to help universities embrace KM in academic libraries .

Research Hypothesis:

Based on the above literature, the research has the following hypothesis:

H1: Application of KM in academic libraries have a significant effect on quality information services and faculty research and publications.

H2: Application of KM in academic libraries have a significant effect on the efficiency and productivity of academic libraries

III. Methodology

The researcher implemented descriptive methodology, and the data was collected through electronic questionnaire. The target population of this study included university library located in India .Survey comprised total of 300 librarians. The items in the questionnaire were measured using 5 point Likert scale .The dependent variable was KM (Knowledge Management),Independent variables comprised of QIS (Quality Information Services) and FRP (faculty research and publications), EP (Efficiency and productivity of academic libraries).Reliability of the measurement scale was checked through Cronbach Alpha.

IV. Data Analysis And Results

The data was analyzed through regression analysis using SPSS. The robustness of the model was measured using factor loading of all the items, which range between .416 to .766, demonstrating that the results were acceptable, having values above the threshold of 0.4 (Field, 2013). The Cronbach alpha values of the scale indicate all the variables' statistics are reliable, having acceptable values of above 0.7 (Murphy and Davidshofer, 1998). Despite that, the results of the Harmans test (Podsakoff et al., 2003) highlight that the single factor comprises approximately 35% of the variance, which means the data did not contain common variance bias (Table 1).

Constructs	Mean	S.D.	Cronbach alpha (α)	Communalities
Quality Information Services QIS				
QIS1	4.54	1.59	.700	.504
QIS2	4.29	1.57		.436
QIS3	5.01	1.67		.499
FRP (faculty research and publications)				
FRP1	4.36	1.85	.870	.763
FRP2	3.59	1.92		.728
FRP3	4.12	2.04		.821
EP (Efficiency and productivity of academic libraries)				
EP1	4.06	2.01	.726	.827
EP2	4.96	1.55		.416
EP3	5.03	1.45		.590
EP4	5.17	1.57		.522
EP5	5.01	1.38		.642

EP6	4.55	1.52		.456
<i>KM (Knowledge Management)</i>				
KM1	4.33	1.73	.787	.517
KM2	3.97	1.91		.709
KM3	4.12	1.81		.656
KM4	4.37	1.88		.557

Table 1: Scale statistics

The outer model robustness, the KMO value (0.823) defines a degree of covariance as "Meritorious," and the p-value (0.000) of Bartlett's test, less than the threshold value (0.05), indicates that the factor analysis (Table 2) can be beneficial and the sample is adequate (Beavers et al., 2013).

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.834
Bartlett's Test of Sphericity	Approx. Chi-Square	1810.162
	df	120
	Sig.	.000

Table 2: KMO and Bartlett's test

Likewise, correlation analysis was also used to gauge the robustness level, which helps verify the distribution effects or the linear connection between two independent variables, which is between +1 and -1 (Ratner, 2009). The findings, i.e., 0.602 are between 0.3 and 0.65, demonstrating a moderate positive linear connection according to the fuzz-firm linear rule, and 0.268 is between 0 and 0.3, indicating a weak positive linear relationship (Table 3).

Correlations					
		QIS	FRP	EP	KMA
QIS	Pearson Correlation	1			
	Sig. (2-tailed)				
FRP	Pearson Correlation	.361**	1		
	Sig. (2-tailed)	.000			
EP	Pearson Correlation	.602**	.585**	1	
	Sig. (2-tailed)	.000	.000		
KMA	Pearson Correlation	.268**	.425**	.338**	1
	Sig. (2-tailed)	.000	.000	.000	

Note: **. Correlation is significant at the 0.01 level (2-tailed).

Whereas, QIS= Quality Information Services, FRP =faculty research and publications, EP =Efficiency and productivity of academic libraries and KM =Knowledge Management Application.

Table 3: Correlation

The results from the regression analysis revealed that the QIS,FRP and EP were responsible for explaining almost 20% of the variation. Two of the hypotheses were accepted, and one of the hypotheses was rejected. Hence, the QIS significantly influence KMA ($\beta = 0.111$; $p < 0.05$; $t > 2$), leading to acceptance of H1. In contrast, FRP does not significantly influence KMA ($p > 0.05$; $t < 2$), thus rejecting H2. In addition, Efficiency and productivity of academic libraries have a positively significant influence on KMA ($\beta = 0.108$; $p < 0.05$; $t > 2$), hence the acceptance of H3 (Table 4).

Constructs	β	e	t	p
<i>Effect on KMA, $R^2 = .199$</i>				
QIS	.111	.082	4.951	.000
FRP	.284	.059	1.346	.180
EP	.108	.115	4.841	.000

Table 4: Regression results: Whereas, QIS= Quality Information Services, FRP =faculty research and publications, EP =Efficiency and productivity of academic libraries and KM =Knowledge Management Application.

V. Discussion

The study findings show that the QIS significantly influences KMA, which means the Quality Information services enhances the Knowledge Management Application among Academic Library. In contrast, the findings suggest that Faculty research and publications fails to influence the Knowledge Management Application among Academic Library. Moreover, the findings suggest that the Efficiency and productivity of academic libraries support the Knowledge Management Application among Academic Library.

Implication

The study's findings provide implications for the academic libraries and Higher education institute to focus on the quality information system to enhance application of Knowledge Management in academic libraries. In addition, the university policies for academic libraries should be aligned with systems to support Knowledge Management Application. Thus, these policies allow educators to build strategies to enhance Knowledge Management application in academic Library.

VI. Conclusion

Knowledge management is concerned with the way in which knowledge is captured, catalogued, retrieved and utilized. It also deals with creating, securing, coordinating, combining, and distributing knowledge. The basic idea is to create a knowledge sharing environment whereby sharing knowledge is power as opposed to the old adage that, simply knowledge is power. Today, the emphasis has moved from continuous training to continue learning, instead of waiting to be trained, the employees seek out knowledge on their own. The present day information providers should aim to become tomorrow's most successful knowledge workers or knowledge managers. Knowledge management (KM) in university libraries in Saudi Arabia can help libraries: Improve services: KM can help libraries provide quality information services and strengthen research and publications. Increase efficiency: KM can help libraries become more efficient and productive. Share knowledge: KM can help libraries transform into knowledge sharing institutions. Become learning organizations: KM can help libraries capture and share knowledge within the library. The study also identifies some challenges to KM in academic libraries that include: Lack of policies, funding, and time for research, Lack of a knowledge sharing culture, Lack of research repositories, Complex and multifaceted knowledge resources. Academic libraries therefore need to prove their relevance, and increase their operational efficiency in order to meet information needs of their numerous users in this present information millennium.

Suggestions:

Knowledge management is a viable means in which academic libraries could improve their services in the knowledge economy. This can be achieved through creating an organizational culture of sharing knowledge and expertise within the library. Some strategies to help organizations embrace KM include: Leadership taking a greater role in shaping the information environment, Using a blend of ICT and non-ICT based KM techniques and technologies, Training and education on how to craft and implement KM strategies. Academic libraries as constituents of the parent University need to explore ways to improve their services and become learning organization in which to discover how to capture and share tacit and explicit knowledge within the library. The changing role of academic libraries as knowledge managers emphasizes the need to constantly update or acquire new skills and knowledge to remain relevant to today's library environment. Academic libraries may need to restructure their functions, expand their roles and responsibilities to effectively contribute and meet the need of knowledge to the target audience and knowing how to translate that knowledge into a central database for employees of the organization to access;

- A sharp and analytical mind;
- Innovation and inquiring;
- Enable knowledge creation, flow and communication within the organization and between staff and public.

Above all, it is important for academic libraries to encourage information professional to constantly update their skills and competence in this changing environment.

VII. Limitations And Future Research Directions

The results of this study should be interpreted considering its limitations. One limitation is that these results are based on the analysis of perceptual data. Individuals, however, are likely to overrate their readiness to perform socially desirable behaviors and underrate their readiness to perform socially undesirable behavior. It is, therefore, likely that the informants in this study over-reported the KS, ITI, MIN, and SEI practice in the investigated libraries.

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