The overview of knowledge management for the benefits of service-based value in the university libraries: A systematic literature review

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**ABSTRACT**
There is an exclusive chance for university libraries to contribute to the future reimagining of library services. In this regard, the job of KM might be extremely successful. As a result, university libraries may provide excellent user services by utilizing KM. This research is to explore the existing models of Knowledge Management (KM) and how the existing models of KM are implemented at university libraries, to recognize how KM is being implemented at university libraries as reported in earlier research, and the benefits of KM practices for creating service value for libraries. This research was performed following the "Preferred reporting items for systematic reviews and meta-analyses (PRISMA)" guidelines. The study found that a skilled workforce and expertise are required for effective KM implementation in university libraries. Outdated skills may serve as a starting point for KM in university libraries, but they are insufficient for providing service-based value. There is a need for Library and Information Science (LIS) professionals to develop additional competencies for KM practice in university libraries. Based on the findings and discussion, it can be concluded that all the authors have recognized the importance of KM in libraries. This finding would aid the university libraries and offer current KM knowledge to other libraries. Therefore, this research would be an excellent addition to the application of KM in university libraries.

**Keywords:** knowledge management; knowledge management practice; knowledge management model; university libraries

**1. INTRODUCTION**

University libraries continuously face various challenges with adopting new technologies for handling knowledge sources. Due to technological advancements, libraries must now reevaluate their users' services (Musangi et al., 2019). Higher education has expanded the use of Knowledge Management (KM) to take advantage of information exchange and utilization as an intellectual resource (Odor, 2018). KM is a crucial component across diverse businesses in the same industry since it broadens the knowledge gathered by enhancing institutions' capacity for innovation and placing them in a competitive advantage over rival companies (Omotayo, 2015).

KM practices have resulted in effective services (Ogola, 2012). Libraries will benefit greatly from a good KM approach, especially in developing nations with limited resources (Abah et al., 2022). In addition, public university libraries are important facilities at learning institutions. A knowledge source that is responsible for compiling all information acquisition, processing, storing, and disseminating in a paper-based and automated manner according to user needs is also necessary (Obinyan & Akande, 2019). University libraries should offer materials for study, group projects, seminars, symposiums, etc., since they...
are a hub for knowledge. Writing a literature review for research objectives and assisting students in the best possible ways with ever-changing knowledge requires using various library resources.

At the same time, over the past three decades, KM has received great attention (Agarwal & Islam, 2020). University libraries could demonstrate their worth by leading KM initiatives as a repository of information and a communication hub for universities. Bangladesh has better prospects for sharing knowledge and managing resources in its libraries and information centers (Islam et al., 2020). KM implementation in organizations often includes planning, initiation, development, and integration (Dei, 2021).

In addition, Library and Information Science (LIS) experts will continue to play a role in KM. Still, for KM to survive and thrive, they must integrate and adapt to the changing organizational contexts (Liebowitz & Paliszkiewicz, 2019). KM in academic institutions could help grow learned-centered knowledge and action learning movement from closed to open knowledge systems and development in Information and Communication Technology (ICT) (Maligat et al., 2020). KM can be characterized as tools for gathering, communicating, coordinating, and locating knowledge sources to help organizations recover and use data to improve access to information sources (Igbinovia & Ikenwe, 2017).

Libraries were involved in information re-engineering, where it was applied, among other things, collecting, user support, acquiring electronic resources, and KM (Goyal & Sharma, 2014). Service-based value includes value development by designing and delivering new and improved services, enhancing service functionality, and improving institutional and consumer operational invention (Islam et al., 2015a). Since it allows librarians to describe their existing situation and the new knowledge age, which must be considered if the society is to be changed, KM could offer significant promise for libraries in emerging nations to provide service-based value to their patrons (Salunke et al., 2011). Excellent performance can result from having a positive corporate culture. Like this, KM can support the development of a positive corporate culture, which generally promotes safety and security in any state (Hussaini et al., 2024). So, organizations that want to flourish in KM must carefully analyze and select the appropriate strategic approach (Kakhki et al., 2021). The library, therefore, should change its management pattern to provide better services. The role of KM can bring prime success in this area. Therefore, KM can be used to improve user services in university libraries.

Research Objectives

The following research objectives guided this research.

1. to explore the existing models of KM and how the existing models of KM are implemented at university libraries.
2. to recognize how the KM is being implemented at university libraries as reported in earlier research.
3. to identify the benefits of KM practices in the University for creating service-based value.

2. METHODS

This research was performed following the “Preferred reporting items for systematic reviews and meta-analyses (PRISMA)” guidelines (Mahmood, 2016; Shamseer et al., 2015). The following search method was used to conduct a systematic search of the literature, limiting the results of the objectives and research questions. The search queries included “Knowledge Management” AND “Service-based value,” “Knowledge Management Libraries,” “Knowledge Management Model” AND “Bangladesh,” “Knowledge Management” AND “Critical success factors,” “Knowledge Management” AND “Knowledge Management Challenges”+Scopus, ScienceDirect and Google Scholar. Therefore, this portion emphasizes the importance of Knowledge Management (KM), the benefits of KM in libraries, and service-based value for university libraries. Existing KM models and critical success factors of KM in the university libraries of
Bangladesh and other countries are also discussed here. There was a restriction on the year of publication from 2015 to 2022. Only English language papers were counted in the search. Databases were searched for relevant literature that included Scopus, ScienceDirect, and Google Scholar. The document’s kind was also restricted to journal and conference papers. The selection of materials was based on relevance to the research objectives and questions. The choice of eligible studies, the screening process, and the reasons for exclusion are depicted in the PRISMA diagram (Figure 1). After initial scanning of the titles, the author acquired 135 full-text documents from 2,923 studies. After the final screening, 40 full-texts studies were included in this research. A brief outline of sources found corresponding to the research objectives and sources is given in Table 1. The detailed findings from these studies are shown in Table 2. In addition, some other articles are used in this study based on the objectives of manual search. These articles were derived from Google, which is not mentioned in Tables 1 and Table 2.

![Identification of studies via databases and manual search on Research objectives, questions and hypotheses](Diagram)

**Figure 1.** The PRISMA Diagram

**Note:** Id = identification, S = Screening, E = Eligibility and I = Included
3. RESULTS AND DISCUSSION

Table 1. Full-text documents found corresponding to the research objectives (Source: PRISMA Diagram, Figure 1)

<table>
<thead>
<tr>
<th>Focus on</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>KM in Bangladesh and global perspectives by Bangladeshi Authors (16)</td>
<td>(Agarwal &amp; Islam, 2020); (Islam et al., 2020); (Rahman &amp; Islam, 2020); (Mostofa &amp; Sultana, 2019); (Akter &amp; Banik, 2019); (Shathi, 2019); (Sultana &amp; Mostofa, 2018); (Mohajan, 2017a); (Mohajan, 2017b); (Islam et al., 2017); (Rahman &amp; Hasan, 2017); (Panni &amp; Hoque, 2017); (Hannan Mia &amp; Hasan, 2016); (Islam, et al., 2015); (Mostofa &amp; Islam, 2015); (Islam et al., 2015b).</td>
</tr>
<tr>
<td>Impacts and benefits of KM in educational institutions and libraries (19)</td>
<td>(Jemal &amp; Zewdie, 2021); (Kordab et al., 2020); (Dei &amp; Walt, 2020); (Asante &amp; Ngulube, 2020); (Shropshire et al., 2020); (Nair &amp; Munusami, 2020); (Maligat et al., 2020); (Sirorei &amp; Fombad, 2019); (Ahmad et al., 2019); (Liebowitz &amp; Paliszkiewicz, 2019); (Bello, 2018); (Sallam et al., 2018); (Oyedokun et al., 2018); (Dlamini, 2017); (Ahmad, 2017); (Koloniari &amp; Fassoulis, 2017); (Daland, 2016); (Almudallal et al., 2016); (Dhamdhere, 2015).</td>
</tr>
<tr>
<td>KM models, critical success factors, and challenges for implementing KM in libraries and educational institutions (05)</td>
<td>(Rafi et al., 2020a); (Rafi et al., 2020b); (Musangi, et al., 2019); (Koloniari, et al., 2015); (Ologbo &amp; Nor, 2015);</td>
</tr>
</tbody>
</table>

KM: an overview

KM is a process for gathering, distributing, and effectively using knowledge. Knowledge acquisition and allocation in higher education are intended to personalize the internal flow and use of information for corporate performance (Davenport, 1994). Liu (2007) described KM as a multidisciplinary strategy for attaining corporate goals by making the greatest use of knowledge in the context of LIS. Similarly, Onyancha and Ocholla (2009) “KM is the management of information resources, services, systems and technologies using various technologies and tools through activities such as information acquisition/creation, information retrieval and storage, data mining, classification and cataloguing, and information use in different information handling institutions or centers such as libraries, archives, and museums.” KM is a discipline that enables individuals, groups, and entire organizations to create, exchange, and use knowledge methodically to achieve their objectives (Young, 2008). Onwurah and Chiaha (2008) stated that KM included knowledge production, dissemination, utilization, and reuse. KM is the practical use of performance-based knowledge on knowledge resources to enhance the organization. Likewise, Mathew (2010) defined KM as the sharing of knowledge and incorporated management that can assist an organization in achieving its goals.

In 2011 Dalkir mentioned that since 2003, “KM has become an essential academic course, as more than 100 universities, business, and library schools offered KM courses and degrees.” KM is as important for libraries as for business, excluding competitive ownership and money-making issues (Pathak, 2014). Based on the maximum number of words used for determining KM, Girard, and Girard (2015, p.14) in their study define “KM as the process of creating, sharing, using and managing the knowledge and information of an organization.” Girard and Girard (2015) identified more than 100 definitions for KM from different domains. They collected these definitions from 13 countries and 23 disciplines, representing the authors’ points of view on the definitions based on their domains and cultures (Sallam et al., 2018). Like other organizations today, libraries can be seen as a collection of integrative processes that work together to accomplish the company’s overall goals. The success of the organization depends on the formation,
coordination, transfer, exchange, and exploitation of tacit and explicit knowledge resources for information to enhance the organization. KM is an established standardized organizational policy for business organizations from the 21st century (Shropshire et al., 2020).

**Research on KM in libraries**

Table 2 shows the detailed findings from the previous studies according to themes chronologically mentioned in the Prisma diagram in Figure 1 and Table 1.

<table>
<thead>
<tr>
<th>Authors and Years</th>
<th>Sample</th>
<th>Method</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mostofa et al. (2023)</td>
<td>499 library users of the University of Dhaka and the University of Rajshahi</td>
<td>Quantitative</td>
<td>The study identified the variables that influence KM practices in Bangladesh’s Dhaka University and Rajshahi University libraries.</td>
</tr>
<tr>
<td>Agarwal and Islam (2020)</td>
<td>17 peer-reviewed journals in LIS</td>
<td>Systematic Literature Review</td>
<td>A few LIS research deals with KM. The study also discovered that numerous scholars have already explored the usefulness of KM for libraries.</td>
</tr>
<tr>
<td>Islam et al. (2020)</td>
<td>16, library professionals in Bangladesh</td>
<td>Quantitative</td>
<td>A significant portion of respondents never attempted to encourage knowledge exchange and sharing initiatives among employees and users. A moderate level of the respondents said they had never created knowledge resources to raise staff and user knowledge and skill levels. The study’s main finding is that KM practice in Bangladeshi libraries has only recently begun.</td>
</tr>
<tr>
<td>Rahman and Islam (2020)</td>
<td>245, teachers and students of agricultural libraries in Bangladesh</td>
<td>Qualitative and Quantitative</td>
<td>Some hindrances to the establishment of digital content management, such as lack of constant power supply, and limited bandwidth speed. Additionally, some users lack fundamental IT knowledge, a shortage of digital resources, and some suggestions for improving digital content management in these libraries.</td>
</tr>
<tr>
<td>Mostofa and Sultana (2019)</td>
<td>12, officers of the National Library of Bangladesh (NLB)</td>
<td>Quantitative</td>
<td>The employees and patrons of NLB’s libraries need to extend their perspectives, change their customary outlooks, and become more concerned with the holistic design of KM systems by focusing on both explicit and tacit knowledge.</td>
</tr>
<tr>
<td>Akter and Banik (2019)</td>
<td>108, lecturers at various universities</td>
<td>Quantitative</td>
<td>The study findings showed a moderate level of knowledge discovery practice in universities, where strategies for accessing/updating knowledge and documentation and interaction for KM practices need to be taken care of.</td>
</tr>
<tr>
<td>Shathi (2019)</td>
<td>55, library professionals in Bangladesh</td>
<td>Qualitative</td>
<td>Most university librarians had no idea about KM practices. The lack of incentives was yet another issue for the participants to motivate library staff regarding KM. Inadequate staff training, limited expertise, inadequate technology, and lack of knowledge sharing (KS) culture were acknowledged as a challenge by the participants.</td>
</tr>
<tr>
<td>Sultana and Mostofa (2018)</td>
<td>11, Deputy Director, Bibliographer, and other staff of NLB</td>
<td>Quantitative</td>
<td>The National Library of Bangladesh (NLB) workplace is favorable for implementing KM. However, some policy modifications are required. Finally, the research disclosed that NLB is an excellent place for implementing KM and has many possibilities for the adoption of KM.</td>
</tr>
<tr>
<td>Mohajan (2017a)</td>
<td>Prepared based on secondary data</td>
<td>Literature Review</td>
<td>KM models play vital roles in the rapid development of technology and the emergence of new products and services in society.</td>
</tr>
<tr>
<td>Mohajan (2017b)</td>
<td>Prepared based on secondary data</td>
<td>Literature Review</td>
<td>The study discussed the various issues of knowledge and KM for achieving organizational goals.</td>
</tr>
<tr>
<td>Islam et al. (2017)</td>
<td>107, librarians from 39 countries</td>
<td>Quantitative</td>
<td>Both knowledge development and application have a significant impact on service innovation in academic libraries.</td>
</tr>
<tr>
<td>Rahman and Hasan (2017)</td>
<td>167, employees of various companies in Bangladesh</td>
<td>Quantitative</td>
<td>The finding reveals that employee loyalty to the organization depends on employee job satisfaction which is highly influenced by organizational performance.</td>
</tr>
<tr>
<td>Authors and Years</td>
<td>Sample</td>
<td>Method</td>
<td>Findings</td>
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<tr>
<td>Panni and Hoque (2017)</td>
<td>42, employees from major telecommunication companies in Bangladesh.</td>
<td>Quantitative and Qualitative</td>
<td>This study has revealed that telecommunication organizations are oriented toward the different customer KM practices.</td>
</tr>
<tr>
<td>Hannan Mia and Hasan (2016)</td>
<td>200, employees of different private and public business organizations</td>
<td>Quantitative</td>
<td>The study indicated that execution-driven strategies and KM-based abilities should be considered in the implementation of KM strategy in Bangladeshi business organizations.</td>
</tr>
<tr>
<td>Islam et al. (2015)</td>
<td>22, professionals in public and private university libraries in Bangladesh.</td>
<td>Quantitative and Qualitative</td>
<td>The use and application of KM in LIS support improved access to information resources and services, enriched professional knowledge of information professionals, enhanced the environment and culture of KS, and changed the working behavior of information professionals.</td>
</tr>
<tr>
<td>Mostofa and Islam (2015)</td>
<td>25, library staff</td>
<td>Quantitative</td>
<td>The findings indicate that limited expertise and lack of clear guidelines are significant challenges to the implementation of KM in Dhaka university library.</td>
</tr>
<tr>
<td>Islam et al. (2015b)</td>
<td>17, academic librarians from ten countries</td>
<td>Qualitative</td>
<td>Most librarians saw service innovation as critical to the continuing success of the library and felt that KM would be beneficial for service innovation in their libraries.</td>
</tr>
<tr>
<td>Jemal and Zewdie (2021)</td>
<td>143, academic staff</td>
<td>Quantitative and Qualitative</td>
<td>Various challenges in the practice of KM at Jimma University, such as inadequate funds, insufficient documentation, inadequate support, and cooperation. The study recommended that colleges spend more on KM practice to improve innovation and motivate academic staff to retain and share knowledge.</td>
</tr>
<tr>
<td>Kordab et al. (2020)</td>
<td>378, employees from three countries</td>
<td>Quantitative</td>
<td>Organizational learning positively affects knowledge acquisition, storage, sharing, application processes, and sustainable organizational performance.</td>
</tr>
<tr>
<td>Dei and Walt (2020)</td>
<td>147, faculty and senior administrative staff of the university</td>
<td>Quantitative and Qualitative</td>
<td>The role and influence of the Community of Practice in KM at the universities were minimal. Even though the high level of understanding of KM techniques and the availability of institutional and informal forums for managing and safeguarding knowledge.</td>
</tr>
<tr>
<td>Asante and Ngulube (2020)</td>
<td>124 library staff members</td>
<td>Quantitative Approach</td>
<td>Aside from strategic planning and human resource management, six out of the eight variables studied showed a substantial positive link with the implementation of overall quality management.</td>
</tr>
<tr>
<td>Shropshire et al. (2020)</td>
<td>Two academic libraries</td>
<td>Case Study</td>
<td>Academic libraries can use KM to better the circumstances under which they operate. Defining the guiding principles of this management theory offers managers a useful foundation for improving the performance of their company.</td>
</tr>
<tr>
<td>Nair and Munusami (2020)</td>
<td>273, employees of educational institutes in Malaysia</td>
<td>Quantitative</td>
<td>Higher education institutions must raise staff KM awareness since KM tools and practices will aid institutions in achieving their competitive goals.</td>
</tr>
<tr>
<td>Maligat et al. (2020)</td>
<td>9, disciplines of Camarines Norte State College</td>
<td>Descriptive Survey Method</td>
<td>KM in higher education could help grow learner-centered knowledge and action learning.</td>
</tr>
<tr>
<td>Sirorei and Fombad (2019)</td>
<td>32, library management committee staff, lecturers, and librarians in Kenya</td>
<td>Qualitative</td>
<td>KM processes were utilized at St. Paul’s University library, and the KM processes were not formalized.</td>
</tr>
<tr>
<td>Ahmad et al. (2019)</td>
<td>6,088 published documents</td>
<td>Systematic Literature</td>
<td>Developed countries dominate the field of LIS concerning the productivity of KM literature. The analysis also shows that the overall number of articles and offers has been gradually rising in all regions.</td>
</tr>
<tr>
<td>Authors and Years</td>
<td>Sample</td>
<td>Method</td>
<td>Findings</td>
</tr>
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</tr>
<tr>
<td>Liebowitz, and Paliszkiewicz (2019)</td>
<td>Prepared based on secondary data</td>
<td>Literature Review</td>
<td>Artificial intelligence, data analytics, the Internet of Things (IoT), and other skill that will benefit KM in the future must be understood by LIS experts.</td>
</tr>
<tr>
<td>Bello (2018)</td>
<td>Prepared based on secondary data</td>
<td>Literature Review/Narrative</td>
<td>KM is concerned with how knowledge is captured, cataloged, retrieved, and utilized. It also deals with creating, securing, coordinating, combining, and distributing knowledge.</td>
</tr>
<tr>
<td>Sallam, et al. (2018)</td>
<td>Prepared based on secondary data</td>
<td>Literature Review/Narrative</td>
<td>The selection of the KM tools is one of the significant challenges that face its implementation. It needs to define the organization’s goals, which sometimes become hard to describe accurately.</td>
</tr>
<tr>
<td>Oyedokun et al. (2018)</td>
<td>389, librarians in Nigeria</td>
<td>Quantitative</td>
<td>The study reported that traditional library skills are part of the KM spectrum and processes, indicating that KM is highly relevant to librarianship.</td>
</tr>
<tr>
<td>Dlamini (2017)</td>
<td>6, librarians in Swaziland</td>
<td>Qualitative and Quantitative</td>
<td>Librarians understand the concept of KM. It has even been realized that they possess minimal skills and competencies to implement KM activities adequately.</td>
</tr>
<tr>
<td>Ahmad (2017)</td>
<td>26, head of the libraries in Pakistan</td>
<td>Quantitative</td>
<td>The Pakistani LIS professionals use KM practices to improve their library services. The LIS community is also very familiar with the term KM.</td>
</tr>
<tr>
<td>Koloniari and Fassoulis (2017)</td>
<td>590, personnel working in Greek academic libraries</td>
<td>Quantitative</td>
<td>LIS practitioners are aware of KM and its benefits. They are also concerned that KM is essential for library performance and for LIS professionals’ future career options.</td>
</tr>
<tr>
<td>Daland (2016)</td>
<td>Prepared based on secondary data</td>
<td>Hermeneutic Literature Review</td>
<td>Obstacles of KM must also be considered before choosing a strategy and implementing this.</td>
</tr>
<tr>
<td>Almudallal et al. (2016)</td>
<td>46, employees are working at the Presidency of the Palestinian government</td>
<td>Quantitative</td>
<td>This paper has focused on four key enablers of KM, &quot;i.e., organizational culture, leadership, personnel, and information technology (IT)&quot;; the results showed clearly that these four factors have contributed in strong positive ways to the performance level of the Palestinian government.</td>
</tr>
<tr>
<td>Dhamdhere (2015)</td>
<td>Prepared based on secondary data</td>
<td>Literature Review/Narrative</td>
<td>KM in the educational institute will surely help in various report generation, strengthening alumni associations, improving students’ employability, improving quality of staff and students’ performance, decision-making and problem-solving, generating funding, and industry-academia collaboration.</td>
</tr>
<tr>
<td>Rafi et al. (2020a)</td>
<td>339, administrative library staff in Pakistan</td>
<td>Quantitative</td>
<td>The applicability performance-based model enhances management competence and develops professional skills and KM techniques in developing the efficiency of academic libraries.</td>
</tr>
<tr>
<td>Rafi et al. (2020b)</td>
<td>339, responses from expert librarians from Pakistan</td>
<td>Quantitative</td>
<td>Library resources with four components (“digital resources, IT, financial planning, and service promotion”) have been successfully integrated into the KM framework to organize resources and provide academic services for researchers.</td>
</tr>
<tr>
<td>Musangi, et al. (2019)</td>
<td>30, librarians of the public and private universities in Kenya</td>
<td>Qualitative</td>
<td>University libraries in Kenya have not optimally achieved the desired reengineering results. The paper recommends that the identified critical success factors be considered wholly, not isolated.</td>
</tr>
</tbody>
</table>
| Koloniari et al. (2015) | 120, librarians and information scientists in Greek | Quantitative | Strong relations between KM strategy and all the other factors suggest that library managers should focus on building a clear KM strategy. Appropriate framework for the implementation of knowledge-conducive practices and the adoption of ICT tools while buttressed by a knowledge-friendly culture.
Authors and Years | Sample | Method | Findings |
---|---|---|---|
Ologbo and Nor (2015) | Prepared based on secondary data and previous KM model | Literature Review/Narrative | The study identified no clear, holistic, practical model for managing organizational knowledge in developing countries. |

**Background of KM Models**

The numerous action tracks and their connections are represented by a model (Alkatheeri, 2018). A theoretical model is a framework that supports or holds up a study's theory. In the field of KM, many models are used worldwide. The present research discussed the following primary theoretical model of KM because these models represent a universal approach to KM by considering people, process, organization, and technology dimensions. Dalkir (2011), cited in Alosaimi (2016), argues that “experts, scholars, and researchers have extensively examined, criticized, and debated these models in the KM literature.” Dalkir (2011) also claims that these models have been applied and field-tested in reliability and validity. The details are given below.

**Existing KM Models**

The KM model describes the methodical creation, validation, presentation, dissemination, and application of knowledge to increase organizational effectiveness (Bhatt, 2001). There are already several models for putting KM systems into practice. According to Earl (2001), KM frameworks offer essential topics for firms to consider while making KM efforts. The structures can support such organizations to address KM methodically and actively (Okunoye, 2004). It will also assist in identifying a specific KM approach, establishing objectives and targets, comprehending the many KM projects, and choosing the most effective contexts (Karemente, 2009; Earl, 2001). It is crucial for productive organizational KM and provides the company with guidance to effectively execute KM (Vangala et al., 2014; Alavi & Leidner, 2001). This research proposes a KM model for creating service-based value for public university libraries in Bangladesh. Therefore, some of the essential KM models are presented in the following sections.

Nonaka and Takeuchi (1995) have established a knowledge conversion model that connects tacit and explicit knowledge in an organization. The Choo model (1998) proved that corporations use information wisely when making decisions. Individual and social awareness are clearly distinguished in the Krogh and Roos (1995) approach. The Wiig KM (1993) model demonstrates how individuals or organizations produce and utilize data. Ologbo and Nor (2015) list the following 7-circle models: “KM initiative, culture, people, systems, technology, engagement, and KM motivation” (Mohajan, 2017a). These models constitute vital components of organizations that wish to create KM structures. A brief description of these models is given below.

Besides the above models, Alavi and Leidner’s (2001) KM model is also recommended because it is a set of cognitive and social knowledge processes. The four dimensions of mutually dependent information management on each other are divided into this model (Gottschalk, 2005). Furthermore, this model is also used to achieve excellence in creativity in the knowledge-based leadership style (Donate & Sánchez de Pablo, 2014; cited in (Supermane, 2019). The present research did not emphasize any specific model described above. Instead, it is described here because experts, scholars, and researchers have extensively examined, criticized, and debated these models in the KM literature (Dalkir, 2011; Alosaimi, 2016).

**To Recognize how the KM is being Implemented at University Libraries as Reported in Earlier Research**

The following table shows how the KM is being implemented at university libraries, as reported in previous research.
Table 3. To recognize how is the KM being implemented at the university.

<table>
<thead>
<tr>
<th>Authors</th>
<th>To what extent is the KM being implemented</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rafi (2020b)</td>
<td>The KM model is being implemented to improve information centers’ performance by organizing library resources, implementing technology, and developing a financial plan.</td>
</tr>
<tr>
<td>Oufkir and Kassou (2019)</td>
<td>The KM model is being implemented to achieve organizational performance and goals through resource integration.</td>
</tr>
<tr>
<td>Schniederjans et al. (2019)</td>
<td>The KM model is being implemented by disclosing and combining the required information to improve organizational performance.</td>
</tr>
<tr>
<td>Rafi et al. (2019)</td>
<td>The model is implemented by describing the theory that explains why the problem is investigated.</td>
</tr>
<tr>
<td>Ugwu and Ekere (2018)</td>
<td>KM implements performance assessments through generous budgets and investments in ICT infrastructure and administrative collaboration and enhances library resources and employee skills.</td>
</tr>
<tr>
<td>Cerchione and Esposito (2017)</td>
<td>The KM model is being implemented through better resource utilization, knowledge diffusion, and effective management of library materials.</td>
</tr>
<tr>
<td>Rouse (2016)</td>
<td>The KM model is being implemented by identifying socio-technical factors, cultural factors, strategic and technological factors of the organization.</td>
</tr>
<tr>
<td>Islam et al. (2015b)</td>
<td>By incorporating implicit and explicit knowledge into organizational processes, a well-structured KM model enhances knowledge integration and application.</td>
</tr>
</tbody>
</table>

How were the Existing Models of KM Implemented at University Libraries?

KM in the libraries encompasses data, information, and knowledge and addresses tacit and explicit knowledge. The following table shows how the existing models of KM were implemented at university libraries.

Table 4. How the different existing models of KM implemented

<table>
<thead>
<tr>
<th>Authors</th>
<th>The stage of the model</th>
<th>Key points of implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonaka and Takeuchi (1995)</td>
<td>Socialization, Externalization, Combination, Internalization</td>
<td>This model is implemented in the library by focusing on knowledge conversion that explains the transformation of tacit into explicit knowledge and then back as the basis for individual, group, and organizational innovation and learning.</td>
</tr>
<tr>
<td>Choo (1998)</td>
<td>Knowledge-creating, Decision-making, Sense-making.</td>
<td>This model is implemented by a sense-making approach that focuses on how information elements are fed into organizational actions through sense-making, knowledge-creating, and decision-making.</td>
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<tr>
<td>Krogh and Roos (1995)</td>
<td>Workers, communication and interaction, structure and design of organizations, relations among members, and management of human resources</td>
<td>This model is implemented by an organizational epistemology approach that knowledge resides both in the minds of individuals and in the relations, they form with other individuals.</td>
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<tr>
<td>Wiig (1993)</td>
<td>Creation, Manifestation, Use, Transfer</td>
<td>This model is implemented by using valuable knowledge classification, a form of the semantic network, which is connected, harmonious, and complete and has perspective and purpose in the organization.</td>
</tr>
<tr>
<td>Ologbo and Nor (2015)</td>
<td>Initiatives, Culture, People, Mechanisms, Technologies, Interactions, Motivations</td>
<td>This model is implemented by examining the relevance of KM’s strategic importance for the organization. Later, consider cultural factors, human and human meaning, social interaction processes, the technical component, the technology relationship, and the KM motivation and reward system and integrate them into it.</td>
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</table>

In the current information economy, knowledge is the key resource for any organization’s success and is required for boosting, managing, and maximizing productivity (Drucker, 1993). Additionally, university libraries need to implement cutting-edge services that increase user value. If libraries want to improve customer happiness and service, they must make sure that their main audiences have simple access to trustworthy and consistent information. Therefore, this can be done by the strategy of KM (Migdadi, 2009), as innovation of library facilities is about transformation and regeneration in nature (De Jong & Vermeulen, 2003). The library staff has a broad knowledge base and the ability to make wise decisions thanks to the intensive use and use of knowledge in library practice (De Beer et al., 2011). Knowledge allows libraries for practical use, especially when organized in an essential way for users (Chigada, 2014). An institution such as a library needs to assess and identify its knowledge assets. These days, KM is being utilized in universities to improve instructional activities, research activities, innovation, and learning procedures (Verma & Jayasimha, 2014). The library and its facilities are more advanced because they are prepared to put new ideas into practice, adjust to changes in the environment and user needs, and embrace technological advancements (Lesneski, 2015). User prerequisites must be considered when improving services and data must be continuously gathered. This can therefore be accomplished through assessment and evaluation; in addition, staff members who interact with customers must remain conscious of the potential for creativity (Islam et al., 2015b). The purpose of selecting, acquiring, organizing, storing, and disseminating information in the library is like KM practice (Oyedokun et al., 2018). Whichever organization wants to stay in business must regard its consumers in some form and aim to create products or services that deliver a particular customer value (Cepeda-Carrion et al., 2017). From the customer service perspective, libraries might enhance user interactions and keep a larger portion of the market from powerful data competitors like search engines, online databases, information sources, and internet service providers (Weinstein & McFarlane, 2017).

Similarly, libraries are part of the communication system and are recognized as information organizations. To succeed in the altering marketplace, libraries must have to perform various fundamental activities such as “(a) managing information; (b) getting used to different requests of patrons; (c) skilled and highly educated staff should be appointed; (d) adopting with latest technological development, new mass media, and social interaction; and (e) lastly need to decide about their competitors” (Weinstein & McFarlane, 2017). Customer value practically means exceptional distribution on four SQIPs (Service, Quality, Image, and Price) components of value, known as “customer value essence” (Weinstein & McFarlane, 2017).

Kristensson (2019), in his review paper, stated that potential service developments are only sometimes beneficial for organizations. He also indicated that history is full of instances where technology has yet to offer any value to both users and organizations. Users need more expertise, awareness, or encouragement, so they may be able to use the technology in a usual manner. However, new technology can mean a way for the institution to save money while users enjoy the same service as they previously had. Some analysts claimed that KM was a brand-new term for the long-established LIS industry (Loughridge, 1999). According to Shanhong (2000), KM should focus on effective knowledge, worthwhile research, and growth in the library, KS, and staff training. It ought to facilitate sharing by hastening the explicit processing of implicit knowledge. Both formally and informally, this exchange might take place through gatherings, conferences, and speeches (Bircham, 2003). KM processes and LIS have a well-established relationship (Branin, 2004). Organizations that use KM methods benefit from the value of organizational knowledge and may make wise decisions (Sinclair, 2006). However, in non-profit organizations, KM can improve teamwork among employees and upper management and encourage a
culture of sharing (Roknuzzaman & Umemoto, 2009). Successful KM methods in an organization should encourage staff to share their expertise and assist staff in overcoming psychological barriers to seeking out or absorbing knowledge from others (Tong & Shaikh, 2010).

Othman and Skaik (2014) found that higher education institutions should be more able to understand KS than other organizations because knowledge creation, conversation, and application are crucial to their job and academics. They also suggested that it is urgently needed to facilitate KS in higher education institutions to improve the present situation. KM in associations is a procedure of securing and reproducing different information dispersed through associations. Semradova and Hubackova (2014) indicated that KM promoted professional skills and competence among employees. One of KM’s key activities is KS (Zhang & Jiang, 2015). Allowing user-oriented solutions can make libraries more involved by reducing reply time, and it can help increase performance. Both lead to lower costs, better efficiency, and satisfied library employees and customers (Islam et al., 2015b).

Similarly, Tan (2016) noted that KS had been identified as an important KM method by multiple research literature that academic institutions should look forward to. The new trends in KM are directed to provide a more meaningful workspace for employees and engage them to enjoy their work (Prentice, 2018). The exchange of knowledge among persons is called KS (Gao et al., 2018), which plays an influential factor in knowledge reuse and is a critical KM practice strategy.

According to Bello (2018), “The main objective of KM in academic libraries is to ensure that the right information is delivered to the right person just in time to make the most appropriate decision.” At different levels, KS can occur like personal-personal, personal-group, and group-group (Gerbin & Drnovsek, 2020). The library world often claims ownership of KM. In practice, the acceptance of KM in libraries is not as widespread as in the business sector. Agarwal and Islam (2020) mentioned though KM is well-known in the business world, it is also familiar in the Library and Information Science (LIS) community. In their review paper, Liebowitz and Paliszkiewicz (2019) stated that KM had become an independent academic field.

The importance of KM is growing every year. As the marketplace becomes more competitive, one of the best ways to remain competitive and innovative is to intellectually and flexibly institutions (Valamis, 2020). KM is essential in a library since it enhances a librarian’s capacity for sense-making. Academic libraries should use KM to deliver services and follow best practices. The most acceptable KM practices in the library may also benefit customers, making it simpler to implement change there. Public university libraries may apply the KM for the following reasons (Valamis, 2020; Anand & Singh, 2011; Aliba, 2008; Snyder & Wilson, 2002).

Skyrme (2001) and Bagorogoza (2015) stated three types of benefits of KM, viz. “(i) knowledge, (ii) intermediate, and (iii) institutional benefits.”

i. **Knowledge benefits:** This benefit is possible to track by investigating the four sources, i.e., (i) access to the latest and most current thinking, (ii) connection to information faster, (iii) enhanced KS, and (iv) realizing who does what. The sources of knowledge benefits are related to the results shown by arrows to other uses (Bagorogoza, 2015).

ii. **Intermediate benefits:** It covers (i) new approaches and thoughts, (ii) resolving problems quickly, (iii) hiring employees who are efficient and more manageable, and (iv) re-invention of service. The intermediate benefits are to be seen as sources of organizational benefits. Each source has at most three benefits (Bagorogoza, 2015).

iii. **Organizational benefits:** The organization would have (i) improved and quicker novelties, (ii) improved customer service, (iii) reduced loss of information, and (iv) better productivity performance.
Knowledge-based initiatives and practices endorsed that KM has many benefits, and the libraries that are determined to change their service for their patrons can adopt KM (Bagorogoza, 2015).

This research is timely as it may have an advantage for successful KM application in university libraries. This research also showed the present-day status of KM in university libraries. The research findings will provide university librarians with the necessary knowledge that will enable them to respond to constraints and support the management of knowledge within their institutions. Implementing KM in university libraries will improve research output, user satisfaction, and curriculum development issues for universities that are launching new departments. This research also supports the importance of KM practices by employees and users’ understanding of university libraries to enhance service innovation and performance. Therefore, the practical implication of this study is the contribution of KM to improving library services. The library’s efficiency will improve due to KM practices. In addition, this research shows librarians how to create an appropriate environment for KM initiatives in the libraries. So, they can manage all the knowledge by implementing KM, which helps them generate service value to achieve better results. The advantages of KM techniques, which can raise competence, staff performance, creativity, and user happiness, should be acknowledged by librarians.

While the users know about KM and are aware of its benefits for their day-to-day tasks, they are more likely to learn and contribute to organizational knowledge governance (Akhavan & Zahedi, 2014). Therefore, library authorities must arrange seminars, symposiums, and orientation sessions to improve the service and user feedback. Developing a standardized written KM policy can help establish a formal KM practice. A written policy would aid in establishing norms that encourage employees to generate, share, and retain knowledge (Sirorei & Fombad, 2019). Therefore, this would enable both users and staff to benefit from the latest technology implementation. In terms of policy, the outcomes of this research can potentially affect the formation of KM policy in university libraries.

4. CONCLUSION

Considering the findings, it is realized that a skilled workforce and expertise are required for effective KM implementation in the libraries. Although outdated skills may serve as a starting point for KM in university libraries, they are insufficient. As a result, there is a need for LIS professionals to develop additional competencies for KM practice in university libraries. As libraries in the twenty-first century continue to develop, LIS professionals will need to be aware of and use artificial intelligence, data analytics, and other skill sets that will bring value to KM in the coming years. This research aimed to examine and discover KM practices in public university libraries in Bangladesh. So, the librarians of public university libraries must have to use their expertise to organize and retrieve information in many sectors such as acquisition, processing, circulation, dissemination, and institutional repositories. The research reported that the university libraries adopt KM practices through a strategic plan including specific objectives, the role of librarians, and identifying the areas of KM practice in the library. Furthermore, this study is designed to provide higher-level decision-makers in libraries with a cause to promote KM. Therefore, this would encourage collaboration and better use of current information to improve performance and maintain competitiveness.

Additionally, users and staff would feel encouraged to create and share their knowledge and expertise. A more profound grasp of the value of KM is critical for all sorts of organizations’ workflows, regardless of the services they deliver. Because knowledge generation, exchange, and usage are at the heart of what universities do. The value of KM should be more apparent to them than to other organizations. Based on the findings and discussion, it can be concluded that all the authors have recognized the importance of KM in libraries. This finding would aid the university libraries and offer
current knowledge to other libraries and developing countries globally. In addition, the present research would help organize a policy useful for university libraries.

5. REFERENCES

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