

User awareness of knowledge management practices of public university libraries in Bangladesh: A study

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Abstract

Background of the study: Users of university libraries frequently have high expectations for the support services offered by the library. The goals of KM are to enhance library services, generate more with fewer resources, prevent duplication of effort, and take advantage of already existing knowledge.

Purpose: The main aim of this research is to recognize the user awareness of Knowledge Management (KM) Practices of public university libraries in Bangladesh.

Method: The present research used quantitative methods. A total of 1,060 printed questionnaires were distributed among undergraduate (UG) and postgraduate (PG) students of five public university libraries in Bangladesh using a simple random sampling technique. Out of 1,060 questionnaires, 811 usable questionnaires were returned, giving a response of 76.5%.

Findings: The study found that users' familiarity with KM is moderately low. They learned about KM through courses provided by their respective departments and independent study through research literature. It was also found that lack of awareness, problems with organizational culture, improper technology deployment, and inadequate support from management are the challenges related to KM practice in public university libraries in Bangladesh.

Conclusion: Finally, the research presented managerial and practical implications with further research directions.

Keywords: *Knowledge, Knowledge management, Knowledge management practices, public university libraries, Bangladesh*

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Introduction

Bangladesh is a developing country with better prospects for sharing knowledge and managing resources in its knowledge-driven institutions like libraries and information centers (Islam et al., 2020). KM in organizations includes planning, initiation, development, and integration (Dei, 2021). As Alshehri and Cumming (2020) mentioned, KM in an organization plays a significant role in the organization's success. There is a need to reshape university libraries' structures to improve user services. The primary goal of KM is to encourage university libraries to be more intelligent in their activities and internal operations. Islam et al. (2015) claimed that KM improves library operational effectiveness by facilitating more accessible access to information resources. Implementing KM also makes it easier to innovate services (Islam et al., 2015b). University libraries have a unique chance to help reimagine library services in the future.

Users of university libraries frequently have high expectations for the support services offered by the library. A type of collaboration that improves services, gives users more organizational learning abilities, and adds value is user feedback on library services. The goals of KM are to enhance library services, generate more with fewer resources, prevent duplication of effort, and take advantage of already existing knowledge (Jain, 2014). In digital environments, the role of information and KM in library services has grown significantly. According to Islam et al. (2020), KM practices are currently being carried out by non-governmental and private organizations in Bangladesh, particularly on social networks. However, in LIS, this technique is still in the theoretical stage. However, research on KM practices and the development of a strategic KM for developing countries in libraries is absent (Abah et al., 2022). Therefore, it is necessary to understand the value and significance of the KM from the viewpoint of a developing nation. Unlike developed countries, not much research has been published on Bangladesh's perspective on KM practices and implementation in the library sector. It has also not been discovered what the users' awareness and familiarity with KM are and how the service value of the libraries can be improved by implementing KM in public university libraries. In addition, most library users in Bangladesh are unaware of the potential impact of KM. As a result, they are not actively participating in making this a worthwhile endeavor. Therefore, it is necessary to discover the relevance and importance of KM for public university libraries in Bangladesh and identify the challenges of KM practices. These were the motivations that prompted this research.

Therefore, this research aims to identify the user's awareness of KM practices for public university libraries in Bangladesh. Due to the relative novelty of KM in Bangladesh's and other developing nations' LIS contexts, this research makes an important contribution (Islam et al., 2020). Predictable research findings will help higher authorities decide on effective KM strategies and policies to employ in university libraries. Additionally, the data collected from public university libraries may be applied to contribute to the various university libraries in Bangladesh, which would facilitate to success of this research. In this regard, this research is expected to add to the users understanding of KM in libraries. The present study also assists the authorities in determining the current practices of KM in their libraries. This research is also significant because it identifies various challenges of KM practices and recognizes the needs of KM in the university libraries in Bangladesh.

This research aims to recognize the user awareness of KM practices in public university libraries in Bangladesh. Based on this objective the following research questions guided this research.

- RQ1:* To what extent are users aware of KM practiced in public university libraries in Bangladesh?
- RQ2:* What are the challenges related to KM practice in public university libraries in



Bangladesh?

RQ3: To what extent are users' demographics associated with their characteristics, awareness, and KM familiarity issues?

For addressing RQ3, we have used non-parametric “Mann-Whitney” and “Kruskal-Wallis” tests to see the differences between variables.

Literature Review

[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.” They found over a hundred definitions of knowledge management from various areas. They gathered these definitions from 23 disciplines and 13 different nations, reflecting the opinions of the authors on the definitions according to their fields and cultural backgrounds. ([Sallam et al., 2018](#)). [Mohajan](#) (2017), in his review paper, stated that there is no single definition for KM, and it is understood differently depending on the industry. For commercial organizations in the twenty-first century KM is a recognized, standardized organizational policy ([Shropshire et al., 2020](#)). Experts in library and information science (LIS) will still be involved in KM. Nevertheless, KM needs to integrate and adjust to the shifting organizational environments to endure and prosper ([Liebowitz & Paliszkievicz, 2019](#)). KM in higher education could support the development of learned-centered knowledge and the shift from closed to open knowledge systems in action learning ([Maligat et al., 2020](#)). To assist businesses, recover and use data to increase access to information sources, knowledge management (KM) can be defined as methods for gathering, communicating, coordinating, and locating knowledge sources ([Igbinovia & Ikenwe, 2017](#)). Value growth through the creation and provision of fresh, enhanced services is a component of service-based value ([Islam et al., 2015a](#)). To succeed in KM, organizations need to thoroughly consider their options and choose the best strategic course of action ([Kakhki et al., 2021](#)).

When KM was first formed, most KM research focused on developed countries. The state of developing countries is hardly ever identified and discussed ([Arrau, 2015](#)). According to [Ahmad et al.](#) (2019), the production of KM literature is governed by developed nations in the LIS field. Additionally, they claimed that China, the UK, and the USA were the three most innovative countries in the world in this sector. The total number of publications available has been steadily increasing across the areas. Despite LIS's growing research and publication tendencies, developing countries' research productivity is still stumpy. In their study, [Islam et al.](#) (2020) found that KM practice in Bangladesh's libraries has just started. Similarly, according to [Shathi](#) (2019), university libraries in Bangladesh's Chittagong divisions do not systematically or formally harness and control their KM activities. She also identified that KM is not considered important to the library's purpose and goals. [Mostofa and Sultana](#) (2019) reported that users and staff of National Library of Bangladesh (NLB) need to broaden their understanding of KM by giving attention to various types of knowledge, i.e., explicit and tacit knowledge. According to [Sultana and Mostofa](#) (2018), the state of KM in NLB is not sufficient. The study also found that although policies need to be amended, the working environment in NLB supports the implementation of KM. [Islam et al.](#) (2015) showed that “document management,” along with the “intranet,” “instantaneous messaging,” “digital warehouse,” and “video conferencing,” is an excessively used KM tool in libraries in Bangladesh. The study acknowledged that the major obstacles to KM use and implementation include “lack of KM awareness,” the “lack of experienced personnel,” “communication gaps,” and “KS's nonexistence culture.” The successful application of the KM system in the libraries of Bangladesh has a variety of obstructions and is rigorously hindered by various challenges.

The above research indicates a clear need to investigate user awareness regarding KM



practices in public university libraries in Bangladesh. Active library users are the key patrons, but none of the studies take their perceptions regarding KM implementation and other aspects for service improvement of the libraries. Therefore, this research emphasizes these gaps in the previous literature and has motivated the researchers to conduct research on public university libraries in Bangladesh. This research provides insightful literature on KM practice and implementation for performing library services in countries like Bangladesh by giving new information.

Method

Research Design

A quantitative survey was carried out to collect data from the active library users of the of the selected public university libraries in Bangladesh.

Population and Sample

Among the 55 public universities ([UGC,2024](#)), this research purposively covered five public universities from four geographical regions across Bangladesh, i.e., “(The University of Dhaka, University of Rajshahi, Bangladesh University of Engineering and Technology, Sylhet Agricultural University, and Jashore University of Science and Technology).” Table 1 shows the name of the sample universities, population, and sample of the research.

Table 1. Name of the Sample Universities, Population, and Sample of the Research (Source: University website; [UGC, 2024](#); University representatives)

Sl. No	Name of the university	Location	Students in the university	Active library users (Approx.)	Subject area
1.	University of Dhaka	Dhaka Division	38,172	2,500	General
2.	University of Rajshahi	Rajshahi Division	38,291	1,500	General
3.	University of Bangladesh Engineering and Technology	Dhaka Division	9,289	2,400	Engineering
4.	Sylhet Agricultural University	Sylhet Division	2,100	150	Agriculture
5.	Jashore University of Science and Technology	Khulna Division	3,959	1000	Science and Technology
	Total		91,811	7,550	

The targeted population of this research was approximately 7,550 active library users of the respective university libraries. In this research, the term active library users means the undergraduate and postgraduate students of various departments/disciplines of the university who use the library a few times a month and issue books from the library. [Krejcie and Morgan's](#) (1970) method showed that 367 sample sizes fit this research. The present research was carried out among 1,060 active users (undergraduate and postgraduate students who visit libraries frequently) to improve accuracy and reduce error.



Data Collection and Analysis

Printed Survey questionnaires were used to collect data for this study. A total of 1,060 questionnaires were distributed among undergraduate (1st-year to 4th-year honors) and postgraduate (master) students of various departments in the five public university libraries in Bangladesh. Out of 1,060 distributed questionnaires, 811 usable questionnaires were returned, giving a response of 76.5%. Once the quantitative data were collected, data were transferred into IBM®SPSS® statistics for analysis.

Result and Discussion

Demographic Profile of the Respondents (N=811)

811 active library users from the five selected public university libraries in Bangladesh participated in this study. Among the respondents, 546 (67.3%) were male, and 265 (32.7%) were female. Table 2 shows that the proportion of male students was higher than female students in the selected public university libraries in Bangladesh. According to [UGC's](#) (2019) 46th annual report, male students (5,07,928) represented the largest number than female students (3,09,779) in the 46 public universities in Bangladesh. The data in the table also show that more than half of the respondents, 423 (52.2%), were from the 22-25 age group. Less than half of the respondents, 365 (45%), were 18-21 years old. The remaining 23 (2.8%) were 26-29 years old.

The educational status of the respondents in Table 2 revealed that among the 811 participants, 208 (25.6%) were 1st-year students (undergraduate), 268 (33%) were 2nd-year (undergraduate), 156 (19.2%) were 3rd-year (undergraduate), 110 (13.6%) were 4th-year (undergraduate) students. The remaining 69 (8.5%) respondents were master's students (postgraduate). The study level distribution shows that most respondents were undergraduate 2nd-year students.

Table 2. Demographic Profile of the Respondent

Demographic	Frequency (N=811)	Percentage (%)
Gender		
Male	546	67.3
Female	265	32.7
Age group		
18-21 years	365	45.0
22-25 years	423	52.2
26-29 years	23	2.8
Current Study level		
Undergraduate		
1 st - year	208	25.6
2 nd - year	268	33.0
3 rd - year	156	19.2
4 th - year	110	13.6
Postgraduate	69	8.5
Total	811	100

User's Familiarity with Explicit and Tacit Knowledge

In this part of the survey questionnaire, library users were asked, "Do you know what explicit knowledge is?" and "Do you know what tacit knowledge is?" Among the 811 participants, 535 (66%) replied positively that they knew about explicit knowledge. The remaining 276 (34%) reacted negatively. Again, the respondents were asked whether they knew what tacit knowledge was. Table 3 identified that more than half of the participants, i.e., 453



(55.9%), reacted positively that they knew about tacit knowledge. The remaining 358 (44.1%) replied negatively. This finding means they do not know about tacit knowledge.

Table 3. User's Familiarity with Explicit and Tacit Knowledge

Statements	Frequency (N=811)	Percentage (%)
Do you know what Explicit Knowledge is?		
Yes	535	66
No	276	34
Total	811	100
Do you know what Tacit Knowledge is?		
Yes	453	55.9
No	358	44.1
Total	811	100

User's Perception of Knowledge Dissemination and Knowledge Sharing (KS)

In this part of the survey questionnaire, the active library users were asked, "How does your library disseminate the captured knowledge to the user?" Out of 811 users, 406 (50.1%) respondents replied that libraries disseminate the captured knowledge to the user through the traditional library system, followed by publication 184 (22.7%), through newsletters, 121 (14.9%) their library disseminated the captured knowledge. The remaining 100 (12.3%) active library users replied that publishing in the website library shares the captured knowledge.

The students were asked, "Use of knowledge brings great benefits to the library?" The maximum number of users, i.e., 668 (82.4%), replied positively to the statement. In contrast, 143 (17.6%) responded negatively. It means that using knowledge would not bring significant benefits to the library. In question number 19, users were asked how they share knowledge with their friends and classmates in the same section. Among the users, 551 (67.9%) of them replied positively. It means that they share knowledge with their friends and classmates. One-fourth of them sometimes shared 204 (25.2%). At the same time, 56 (6.9%) replied negatively regarding the statement. Later, the students were asked if yes, then how they shared. Table 4 shows that most users, i.e., 521 (64.2%), shared their knowledge through conversation. While 128 (15.8%) of them shared their expertise through meetings, followed by chat 86 (10.6%). Only 14 (1.7%) and 6 (.7%) shared their knowledge through storytelling and wikis.

Table 0. User's Perception of Knowledge Dissemination and KS

Statements	Frequency (N=811)	Percentage (%)
How does your library disseminate the captured knowledge to the user?		
Through publication	184	22.7
Through newsletter	121	14.9
Through the traditional library system	406	50.1
By publishing on the website	100	12.3
Would the use of knowledge bring great benefits to the library?		
Yes	668	82.4
No	143	17.6
Do you share knowledge with your friend or classmates?		
Yes	551	67.9

No	56	6.9
Sometimes	204	25.2
If yes, then how do you share?		
Conversation	521	64.2
Meetings	128	15.8
Chat	86	10.6
Wikis	6	.7
Storytelling	14	1.7
Total	755	93.1
No replied to the previous questions	56	6.9
Total	811	100

KM Meets the Requirements of a Library to Achieve Goals

Table 5 shows that, out of 811 users, 482 (59.4%; N=811) of the respondents replied positively that KM meets the requirements of a library to achieve its goals. At the same time, 230 (28.4%; N=811) said they were not sure about the statement. In contrast, 99 (12.2%; N=811) replied negatively. It means that most of the users considered that KM meets the requirements of a library to achieve its goals.

Table 5. KM Meets the Requirements of a Library to Achieve Goals

KM meets the requirements of a library	Frequency (N=811)	Percentage (%)
Yes	482	59.4
No	99	12.2
Not sure	230	28.4
Total	811	100

How KM Meets the Requirements of a Library to Achieve Goals

Keeping in mind the previous questions, the users who replied with 'no' options were asked to add their suggestions on how the KM meets the requirements of a library to achieve goals. They were given six options for choosing the answers. Most of the users, 355 (43.8%), replied that KM meets the requirements of a library by creating new knowledge. More than one-fourth of them, i.e., 180 (22.2%), believed that by expanding the access of knowledge for the users, KM meets the requirements of a library, followed by accessing and retrieving knowledge from outer sources 137 (16.9%), representing knowledge in databases, software, and others 86 (10.6%), transmitting present knowledge round the libraries 44 (5.4%). Only 9 (1.1%) of them said that KM meets the requirements of a library by using reachable knowledge in policymaking (Table 6).

Table 6. How does KM Meet the Requirements of a Library to Achieve Goals?

How KM meets the requirements of a library	Frequency (N=811)	Percentage (%)
Creating new knowledge.	355	43.8
Accessing and retrieving knowledge from outer sources.	137	16.9
Expand the access to knowledge for their users.	180	22.2
Representing knowledge in databases, software, and others.	86	10.6
Transmitting present knowledge around the libraries.	44	5.4



Using reachable knowledge in policymaking.	9	1.1
Total	811	100.0

KM as Interesting in Library Practice

In this part of the questionnaire, users were asked, “Do you find KM as interesting in library practice?” Table 7 shows that 531 (65.5%) users replied positively. The remaining 280 (34.5%) responded negatively. It is clear from the table that KM practices in the library would be interesting for service improvement.

Table 7. KM as Interesting in Library Practice

KM as interesting in library practice	Frequency (N=811)	Percentage (%)
Yes	531	65.5
No	280	34.5
Total	811	100.0

Challenges Faced by the Library for Implementing KM

As an active library user, the researcher sought to know from the users about the challenges of KM activities in the libraries. For this purpose, they were given eight challenges on a 5-point Likert scale and asked to rate their agreement and disagreement among those challenges. All eight items were found valid and reliable. The survey respondents affirmed the highest mean score, 3.48, and the lowest mean score, 2.79. The results are shown in Table 8. The details are given below.

Table 8 showed that the highest number of participants, 461 (56.8%; N=811; Mean=3.48), agreed and strongly agreed that "Lack of awareness" is the key challenge for implementing KM in public university libraries. The table also indicates that a total of 401 (49.5%; N=811; Mean=3.29) agreed and strongly agreed that “Improper technology deployment” is another important challenge for KM practices. “Losing information from employee's resignation and retirement” 398 (49%; N=811; Mean=3.31) is another significant challenge for KM practice in public university libraries. The table also shows that 378 (46.6%; N=811; Mean=3.21) agreed and strongly agreed that “Feeling shy in nature of the employee to share knowledge” is another significant challenge of KM practices. “Inadequate support from management” 376 (46.4%; N=811; Mean=3.19) is another challenge mentioned by the users. “Do not find KM process as interesting” 367 (45.2%; N=811; Mean=3.18) is another barrier to KM implementation in public university libraries declared by the users. A total of 349 (43.1%; N=811; Mean=3.09) agreed and strongly agreed that “Problems with organizational culture” are also considered another challenge by the users. A total of 298 (36.7%; N=811; Mean=2.79) agreed and strongly agreed that “Unwillingness to explore the difficulties” associated with KM were deemed minor challenges for implementing KM in Bangladesh's public university libraries. All these findings ranked on a 1–5-point Likert scale. These are key challenges in KM practices from the user’s point of view.

Table 8. Challenges are Faced by the Library (N=811)

Statements	1	2	3	4	5	Mean (SD)
Unwillingness to explore the difficulties associated with KM.	217 (26.8%)	89 (11%)	207 (25.5%)	242 (29.8%)	56 (6.9%)	2.79 (1.309)

Problems with organizational culture.	93 (11.5%)	159 (19.6%)	210 (25.9%)	278 (34.3%)	71 (8.8%)	3.09 (1.158)
Inadequate support from management.	116 (14.3%)	95 (11.7%)	224 (27.6%)	274 (33.8%)	102 (12.6%)	3.19 (1.224)
Felling shy in nature of the employee to share knowledge.	103 (12.7%)	111 (13.7%)	219 (27%)	271 (33.4%)	107 (13.2%)	3.21 (1.211)
Don't find the KM process as interesting.	106 (13.1%)	133 (16.4%)	205 (25.3%)	242 (29.8%)	125 (15.4%)	3.18 (1.253)
Improper technology deployment.	97 (12%)	97 (12%)	216 (26.6%)	277 (34.2%)	124 (15.3%)	3.29 (1.212)
Losing information from employee's resignations and retirement.	93 (11.5%)	107 (13.2%)	231 (26.3%)	255 (31.4%)	143 (17.6%)	3.31 (1.232)
Lack of awareness.	93 (11.5%)	87 (10.7%)	170 (21%)	262 (32.3%)	199 (24.5%)	3.48 (1.283)

Mann-Whitney U Test for Users' Gender and Characteristics

To know the extent to which users' demographics are associated with their characteristics, awareness, and KM familiarity issues, i.e., to see the differences among gender and personal characteristics, non-parametric “Mann–Whitney U” tests were carried out, and a p-value of <0.05 was considered significant. The results of the Mann–Whitney U test found statistically significant differences between gender and their ratings on personal characteristics for “How frequently do you use your library?” (Mann–Whitney U= 55742.500, p<0.05). These findings showed that female users (Mean rank=468.65) are the frequent library visitors than male users (Mean rank=375.59). “Have you used the web-based services of the library?” (Mann–Whitney U=62644.500, p<0.05). These results also revealed that female users (Mean rank=442.61) used the web-based library service more than male users (Mean rank=388.23). “Are you aware of any KM practice in your library?” (Mann–Whitney U=58153.000, p<0.05). This finding showed that female users (Mean rank=459.55) are more aware of KM practice than male users (Mean rank=380.01).

Significant differences were not found between gender and personal characteristics “Why do you visit the library?” (Mann–Whitney U=72006.500, p>0.05), “How many years have you been using the library?” (Mann–Whitney U=71177.000, p>0.05), “How often do you use the above web-based services?” (Mann–Whitney U= 21628.000, p>0.05), “Do you share knowledge with your friends or classmates?” (Mann–Whitney U=72142.000, p>0.05), “How much familiarity with KM?” (Mann–Whitney U= 69906.500, p>0.05).

Table 9. Mann-Whitney U Test for Users' Gender and Characteristics (N=811)

Personal Characteristics	Gender	Mean Rank	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
Why do you visit the library?	Male (n=546)	406.62	72006.500	107251.500	-.156	.876
	Female	404.72				

	(n=265)					
How frequently do you use your library?	Male (n=546)	375.59	55742.50	205073.5	-	.000
	Female (n=265)	468.65	0	00	5.673	
How many years have you been using the library?	Male (n=546)	403.86	71177.00	220508.0	-.612	.540
	Female (n=265)	410.41	0	00		
Have you used the web-based services of the library?	Male (n=546)	388.23	62644.50	211975.5	-	.000
	Female (n=265)	442.61	0	00	3.623	
How often do you use the above web-based services?	Male (n=546)	242.87	21628.00	30013.00	-.197	.843
	Female (n=265)	212.50	0	0		
Do you share knowledge with your friend or classmates?	Male (n=546)	406.37	72142.00	107387.0	-.079	.937
	Female (n=265)	405.23	0	00		
How much Familiarity with KM	Male (n=546)	401.53	69906.50	219237.5	-.809	.418
	Female (n=265)	415.20	0	00		
Are you aware of any KM practice in your library?	Male (n=546)	380.01	58153.00	207484.0	-	.000
	Female (n=265)	459.55	0	00	4.837	

The Kruskal-Wallis tests for the Current Study Level of Users with KS and KM Perceptions

To see the differences among the current study level, and with KS, KM familiarity, KM awareness, and KM as interesting in library practice, non-parametric “Kruskal–Wallis” tests were also carried out, and a p-value of <0.05 was considered as significant. Table 10 found the statement “How much Familiarity with KM” (Chi-square=38.719; Df=4; P <0.05), and “Do you find KM as interesting in library practice” (Chi-square=18.118; Df=4; P<0.05) has a significant difference from the current study level. These findings mean that respondents with a relatively high level of education had more familiarity with KM (Mean rank=434.45 for 3rd-year students; Mean rank=474.26 for 4th-year students; Mean rank=454.8 for master’s students). The findings also showed that respondents with a lower level of education showed KM as interesting in library practice (Mean rank=404.42 for 1st-year students; Mean rank=440.00 for 2nd-year students and Mean rank=401.17 for 3rd-year students) but not so between the rest of the current study level categories. Table 10 also revealed that no significant difference was found between “Do you share knowledge with your friend or classmates?” (Chi-square=4.415; Df=4; p> 0.05) and “Are you aware of any KM practice in your library?” (Chi-square=2.286; Df=4; p> 0.05) with the current study level.

Table 10. The Kruskal Wallis test for Study Level with KS and KM Perceptions (N=811)

Statements	Current Study Level	Mean Rank	Chi-Square	Df	Asymp. Sig
Do you share knowledge with your friend or classmates?	Undergraduate(1st)=208	386.25	4.415	4	.353
	Undergraduate(2nd)=268	422.72			
	Undergraduate(3rd)=156	409.39			
	Undergraduate(4th)=110	401.32			
	Masters=69	400.40			
How much Familiarity with KM	Undergraduate(1st)=208	416.50	38.719	4	.000
	Undergraduate(2nd)=268	340.69			
	Undergraduate(3rd)=156	434.45			
	Undergraduate(4th)=110	474.26			
	Masters=69	454.87			
Are you aware of any KM practice in your library?	Undergraduate(1st)=208	395.88	2.286	4	.683
	Undergraduate(2nd)=268	409.59			
	Undergraduate(3rd)=156	424.54			
	Undergraduate(4th)=110	389.02			
	Masters=69	407.68			
Do you find KM as interesting in library practice	Undergraduate(1st)=208	404.42	18.118	4	.001
	Undergraduate(2nd)=268	440.00			
	Undergraduate(3rd)=156	401.17			
	Undergraduate(4th)=110	361.85			
	Masters=69	360.03			

Findings

RQ1: To What Extent are Users Aware of KM Practiced in Public University Libraries in Bangladesh?

The research found that among the respondents, a total of 535 (66%; N=811) knew about explicit knowledge. The research also identified that more than half of the respondents, i.e., 453 (55.9%; N=811), responded positively that they knew about tacit knowledge. The research also found that a reasonable number of the respondents, 333 (41.1%; N=811), replied positively that they are aware of the KM practice in the library. In contrast, 249 (30.7%; N=811) responded negatively that they were unaware of KM practices, and 229 (28.2%; N=811) said they were not sure about the KM practice in the library.

The maximum number of respondents, i.e., 668 (82.4%; N=811), replied positively that knowledge would bring benefits to the library. It means that most users believed using knowledge would benefit the library significantly. The research found that many respondents, i.e., 551 (67.9%; N=811), shared their knowledge with others. The majority of those who shared knowledge with others, i.e., 204 (25.2%; N=811), shared knowledge sometimes. It means that users have a positive tendency to share knowledge with their friends and classmates. Present research reported that most users, i.e., 521 (64.2%; N=811), shared their knowledge through conversation. While 128 (15.8%) of them shared their knowledge through meetings, followed by chat 86 (10.6%).

RQ2: What are the Challenges Related to KM Practice in Public University Libraries in Bangladesh?

The research indicated the following results about the challenges related to KM practice. The present research showed that the highest number of participants, 461 (56.8%;



N=811; Mean=3.48), agreed and strongly agreed that "Lack of awareness" is the key challenge for implementing KM in public university libraries. So, employees' awareness and proper technology deployment are necessary for KM practices and implementation. This research also revealed that a total of 401 (49.5%; N=811; Mean=3.29) agreed and strongly agreed that "Improper technology deployment" is another important challenge for KM practices. "Losing information from employee's resignation and retirement" 398 (49%; N=811; Mean=3.31) is another significant challenge for KM practice in public university libraries. The research found that a total of 378 (46.6%; N=811; Mean=3.21) agreed and strongly agreed that "Feeling shy in nature of the employee to share knowledge" is another significant challenge of KM practices. "Inadequate support from management" 376 (46.4%; N=811; Mean=3.19) is another challenge mentioned by the users. "Do not find KM process as interesting" 367 (45.2%; N=811; Mean=3.18) is another barrier to KM implementation in public university libraries declared by the users.

This research also revealed that a total of 349 (43.1%; N=811; Mean=3.09) agreed and strongly agreed that "Problems with organizational culture" are also considered another challenge by the users. A total of 298 (36.7%; N=811; Mean=2.79) agreed and strongly agreed that "Unwillingness to explore the difficulties" associated with KM were deemed minor challenges for implementing KM in Bangladesh's public university libraries. All these findings ranked on a 1–5-point Likert scale. These are key challenges in KM practices from the user's point of view.

RQ3: To What Extent are Users' Demographics Associated with Users' Characteristics, Awareness, and KM Familiarity Issues?

The results of the Mann–Whitney test found statistically significant differences between gender and their ratings on personal characteristics for "How frequently do you use your library?" (Mann–Whitney U = 55742.500, $p < 0.05$). These findings showed that female users (Mean rank=468.65) are the frequent visitors of the library than male users (Mean rank=375.59). "Have you used the web-based services of the library?" (Mann–Whitney U=62644.500, $p < 0.05$). These results also revealed that female users (Mean rank=442.61) used the web-based library service more than male users (Mean rank=388.23). "Are you aware of any KM practice in your library?" (Mann–Whitney U=58153.000, $p < 0.05$). This finding showed that female users (Mean rank=459.55) are more aware of KM practice than male users (Mean rank=380.01). Significant differences were not found between gender and personal characteristics "Why do you visit the library?" (Mann–Whitney U=72006.500, $p > 0.05$), "How many years have you been using the library?" (Mann–Whitney U = 71177.000, $p > 0.05$), "How often do you use the above web-based services?" (Mann–Whitney U = 21628.000, $p > 0.05$), "Do you share knowledge with your friends or classmates?" (Mann–Whitney U = 72142.000, $p > 0.05$), "How much familiarity with KM?" (Mann–Whitney U = 69906.500, $p > 0.05$).

The results of the Kruskal-Wallis H found that the statement "How much Familiarity with KM" (Chi-square=38.719; Df=4; $P < 0.05$), and "Do you find KM as interesting in library practice" (Chi-square=18.118; Df=4; $P < 0.05$) has a significant difference from the current study level. These findings mean that respondents with a relatively high level of education had more familiarity with KM (Mean rank=434.45 for 3rd-year students; Mean rank=474.26 for 4th-year students; Mean rank=454.8 for master's students). The findings also showed that respondents with a lower level of education showed KM as interesting in library practice (Mean rank=404.42 for 1st-year students; Mean rank= 440.00 for 2nd-year students and Mean rank=401.17 for 3rd-year students) but not so between the rest of the current study level categories. The findings also revealed that no significant difference was found between "Do you share knowledge with your friend or classmates?" (Chi-square=4.415; Df=4; $p > 0.05$) and



“Are you aware of any KM practice in your library?” (Chi-square=2.286; Df=4; $p > 0.05$) with the current study level.

Similarly, the findings also showed that the statement “How much Familiarity with KM” (Chi-square=38.719; Df=4; $P < 0.05$) and “Do you find KM as interesting in library practice” (Chi-square=18.118; Df=4; $P < 0.05$) has a significant difference from the current study level. These findings mean that respondents with a relatively high level of education had more familiarity with KM (Mean rank=434.45 for 3rd-year students; Mean rank=474.26 for 4th-year students; Mean rank=454.8 for master’s students). The findings also showed that respondents with a lower level of education showed KM as interesting in library practice (Mean rank=404.42 for 1st-year students; Mean rank= 440.00 for 2nd-year students and Mean rank=401.17 for 3rd-year students) but not so between the rest of the current study level categories. The research findings also revealed that no significant difference was found between “Do you share knowledge with your friend or classmates?” (Chi-square=4.415; Df=4; $p > 0.05$) and “Are you aware of any KM practice in your library?” (Chi-square=2.286; Df=4; $p > 0.05$) with the current study level.

Discussion

KM is beneficial not only to library administration and staff but also to library users. From the questionnaire survey, the research found that users have a positive level of consent regarding the benefits of KM for library services. Previous studies ([Tan, 2016](#); [Abbas, 2015](#); [Jain, 2014](#)) also found that knowledge is shared among users by using diverse instruments together with brainstorming, storytelling, training, workshops, seminars, chat, conversation, and information sessions with the staff and the users of the library, etc. The research revealed that users have a moderate level of consent regarding the quality of library services and the relevance of KM to library practice. This finding supports the results of [Islam et al.](#) (2015). They claimed that using KM in Library and Information Science (LIS) provides increased access to information resources and services and enhances the knowledge of information professionals. The results showed that students have moderately low familiarity with KM. [Koloniari and Fassoulis](#) (2017) found that most LIS students are familiar with KM. The finding from the research supports [Baghdadabad](#) (2008) that students of different departments understand KM as the LIS department.

The present research also found that most users measured that KM meets the requirements of a library to achieve its goals by creating new knowledge. The findings from the research supported the findings of [Nazim and Mukherjee](#) (2013). They claimed that KM could benefit the libraries' operations and services. They also stated that KM could help academic libraries become more relevant to their universities by reducing the likelihood of duplication of effort. In their study, [Koloniari and Fassoulis](#) (2017) revealed that implementing KM in academic libraries may improve the operations and services of the libraries. [Islam et al.](#) (2015b) found that KM would be incredibly beneficial for the academic library in terms of service innovation. They stated that incorporating various factors of KM practices and overcoming those factors would lead to creation and innovation in academic libraries, with new service outcomes that are also supported by the present research findings.

The survey identified that problems with organizational culture, improper technology deployment, inadequate support from management, and feeling shy in the nature of the employee to share knowledge are the challenges related to KM practice in public university libraries in Bangladesh. These findings are consistent with [Batista and Quandt](#) (2017). They said that a lack of commitment from top management is a primary obstacle to KM implementation. This result of the study authenticates the statement of [Sunj](#) (2016). She identified several cultural barriers in the academic library, such as lack of motivation,



willingness to share knowledge, lack of trust, etc.

Similarly, [Shathi](#) (2019) found that a “lack of awareness” of KM is the major challenge in the libraries in the Chittagong division in Bangladesh. [Dlamini](#) (2017) identified several challenges in implementing KM in Swaziland. He found that “constant budget decline,” “inadequate staff training,” “limited expertise in KM,” “lack of sharing knowledge environment,” etc., affect the implementation of KM in the libraries of Swaziland. Similarly, [Mostofa and Islam](#) (2015) revealed various challenges of implementing KM in university libraries, i.e., “limited expertise and lack of clear guidelines,” inadequate staff training, etc. This research identified numerous challenges that public university libraries usually face in their quest to practice KM, i.e., “lack of budget and user awareness,” “lack of trained staff,” and “obsolete technology” for KM practicing in the library. These findings also align with [Islam et al.'s](#) (2014) study. They identified that lack of awareness is an essential obstacle to implementing KM. When knowledge is shared among an organization's personnel, it improves its effectiveness and allows other social engagement, which is beneficial to knowledge generation and organizational learning ([Abualqumboz et al., 2017](#); [Wang et al., 2014](#)). Similarly, [Verma and Jayasimha](#) (2014) reported that “lack of funding for KM,” “lack of incentive to share knowledge,” and “lack of commitment from top-level management” are some challenges for KM implementation in the organization.

Conclusion

The conclusions drawn from this research are based on quantitative approaches. The quantitative portion is reflected in the statistical section. Research questions directed the presentation of results. The research found that users have a positive level of consent regarding the advantages of KM for library service. The research found that a satisfactory number of the respondents replied that they are aware of the library's KM practice, but their familiarity with KM is moderately low. The research findings from “Mann–Whitney U” tests showed that female users are frequent visitors and use the web-based library service more than male users. They are more aware of KM practice than male users. The “Kruskal–Wallis” tests also showed that users with a relatively high level of education had more familiarity with KM. The present research also identified the key challenges (lack of user awareness, lack of trained staff, obsolete technology) for practicing KM. It has also been considered that the library sector is undeveloped in Bangladesh, which needs to be improved to build a digital Bangladesh. The present research contributes to understanding the challenges to KM practice in public university libraries in Bangladesh. Based on the findings and discussion, it can be concluded that all the users have recognized the importance of KM by distinguishing the challenges of practicing KM in public university libraries in Bangladesh. This finding would aid other Bangladeshi libraries and other developing nations.

This research has a few limitations, like other research. However, the limitations did not affect the findings of the present research. The research assessed only the selected public university libraries in Bangladesh. Other higher educational institutions, like private universities in Bangladesh, were excluded from this research due to the time and cost limitations. The researchers expect that the experiences and ideas shared here will considerably boost the chances of success by opening new pathways for future researchers, resulting in advances in library services.

Research implications

Libraries are essential parts of education as they are knowledge repositories. Libraries in the twenty-first century are placing a greater emphasis on providing services that enable individuals to access knowledge and information from various sources ([Marouf, 2017](#)).



Similarly, Bangladesh attempts to adapt to global change through the revolution of its education system, which is not possible without libraries. So, an effective effort on KM practices at the university and its libraries is needed to transform the educational system and globalization (Aker & Banik, 2019). So, this research's managerial and practical implications for university libraries in Bangladesh are multiple. Present research offers a better understanding of KM, its definitions, outcomes, and relations to each other. Practicing KM in public university libraries may improve user gratification for Bangladeshi universities. The research findings demonstrated that library users have moderately low familiarity with KM. This research supports the importance of KM to users' familiarity in Bangladesh to improve service innovation. So, the authority needs to take this issue seriously and become more familiar with the library users regarding KM and its benefits as active users are the heart of the university libraries. The practical implication of this study is the impact of KM in enhancing library services. On a more practical level, the higher authority may select new employees by looking for staff members who are familiar with KM. To assist library users who have negative views regarding KM, top management can also guide them to change their attitudes.

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Authors' Contributions

All authors have contributed to the final manuscript. The contribution of all authors: conceptualization, methodology, formal analysis, writing original draft preparation, writing review and editing. All authors have read and agreed to the published version of the manuscript.

Conflict of Interest

The authors declare no potential conflict of interest regarding the publication of this work. In addition, the authors have completely witnessed ethical issues, including plagiarism, data fabrication, double publication and/or submission, and redundancy.

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