

Barriers to Knowledge Sharing among Students at Libyan Universities

Mailud Balal^{1*}, Abdilrahman Ebrahim², Abdalmanam Abraham², Khuloud Elsheibani²¹Academic Staff Member at Higher Institute of Science and Technology Alabyar, Libya²School of Human and Social Sciences, Marketing Program, Libyan International University, Benghazi, LibyaDOI: <https://doi.org/10.36347/sjebm.2024.v11i10.002>

| Received: 24.08.2024 | Accepted: 04.10.2024 | Published: 05.10.2024

*Corresponding author: Mailud Balal

Academic Staff Member at Higher Institute of Science and Technology Alabyar, Libya

Abstract

Original Research Article

This study aimed to investigate the knowledge-sharing barriers among Libyan university students. The study explores the individual, organizational, and technological barriers to knowledge sharing among university students in Libya, and whether any significant differences could be attributed to the influences of demographic factors. A questionnaire was developed, validated and used to collect the required data. The sample size was 384 as recommended by Krejcie & Morgan (1970), and a higher sample of 409 responses were with 399 deemed valid for the analysis phase. Statistical Package for Social Science (SPSS) was used to analyze the data. Reliability tests, normality tests, means, frequencies and hypotheses tests were all used at this stage. The key results of the study are that knowledge-sharing barriers negatively affect knowledge-sharing. The study has its limitations, especially the limited number of published studies on the topic in Libya. The recommendation and implications of the study are that decision-makers and the Libyan Ministry of Education and universities should be more aware of such a problem to take all necessary measures in this respect.

Keywords: Knowledge-sharing, Barriers, Libyan university students, Demographic factors, Data analysis, Education policy.

Copyright © 2024 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution **4.0 International License (CC BY-NC 4.0)** which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

1. INTRODUCTION

In today's world economy, knowledge has become a vital element for the development and growth of any society. Knowledge will inevitably serve as the driving force for greater productivity, economic growth, and performance as the modern world economy has become more knowledge and information-based. Knowledge is more than simply information since it has been interpreted and processed according to a point of view, preparing the receiver for appropriate actions (Aguolu, I.E., 2002). A variety of factors can impact knowledge sharing. Knowledge-sharing studies have emerged as a specific research area since the mid-late 1980's. but the discussion of factors impeding knowledge sharing has been taking place in literature since even earlier times: for instance, Riege (2005) discusses these problems as early as Katz & Allen (1982).

“Active sharing of information and knowledge is an important activity in the learning process to build strong relationships and trust among students” (Rafique & Anwar, 2019).

Effective knowledge sharing amongst students at all levels boosts interactive learning by encouraging a sharing mentality, which contributes to higher exam marks. Sharing information, knowledge, ideas, and personal experiences plays a significant role for students regarding learning and development (Anwar *et al.*, 2019).

There are many studies describing the benefits of KS. For instance Oosterlinck & Leuven (2002) stated that “students who shared more knowledge enabled themselves to better understand the lessons, business, culture, and society. After completing graduation, these students were better equipped for the job than those who did not share knowledge.”

Additionally, several factors limit knowledge sharing among individuals, such as individual barriers, organizational barriers and technological barriers.

Whereas, limited research has been carried out examining influential factors and KS barriers among students in higher education (Majid & Wey, 2011; Wangpipatwong, 2009; Yuen & Majid, 2007).

Also, there has been a lack of knowledge sharing in the education environment, particularly among students (Boateng *et al.*, 2017; Chikoor & Ragsdell, 2013). Based on these statements, this study determines the barriers to knowledge sharing among students.

1.1 Definitions

Knowledge Sharing: Connelly & Kelloway (2003) defined knowledge sharing as the exchange of knowledge or the behaviour that helps others with knowledge. Ipe (2003) thought that knowledge sharing between individuals was the process by which private individuals' knowledge turned out to be understood, absorbed, and used by others.

Universities: Public universities are higher education institutions that are mainly government-funded. Private universities are institutions of higher education that are not government-owned, operated, or funded.

Knowledge Sharing Barriers: These are frequently related to factors such as lacking communication abilities and social networks also mentioning lack of time and trust (Riege, 2005).

Individual Barriers: These are bottlenecks originating from individual behavior or people's perceptions and actions. Such as lack of trust, "Many studies reported that a lack of trust between employees results in weakened relationships, which creates hindrance in knowledge sharing also lack of social networks, and lack of time (Anwar *et al.*, 2019).

Organizational Barriers: This refers to conditions that negatively impact the right corporate environment and do not promote the free flow of knowledge sharing, and lack of organizational rewards to represent organizational factors, Other factors that impede KS among students are the lack of sharing culture, lack of leadership and managerial direction in terms of clearly communicating the benefits and values of knowledge-sharing practices (Rafique & Anwar, 2019).

Technological Barriers: Various factors identified by Zawawi *et al.*, (2011) include a lack of information and communication technology (ICT) to represent technological factors, which also refers to a lack of technical support and lack of integration of the IT systems.

1.2 Problem of the Study: From our experience as students, we have noticed that the level of knowledge sharing between students is low in Libyan universities. Where students prefer not to share. Hence, in the current study, the focus will be placed on the students in Libyan universities and explore the vital barriers affecting knowledge-sharing among students.

The study determines the main barriers to knowledge sharing among Libyan students, also do private and public university students share the same barriers when sharing knowledge?

1.3 Objectives of the Study: 1) To explore the most common obstacles to knowledge sharing among university students in Libya; 2) To examine if there are any significant differences among participants' responses that could be attributed to the demographic factors; 3) To determine if there are any significant differences among participants' responses that could be attributed to the ownership type of the university; and 4) To put forward some key implications and recommendations for policymakers and researchers.

1.4 Importance of the Study: According to some studies Yuen & Majid (2007), Wangpipatwong (2009), and Majid & Wey (2011) it has been found that there are limited studies that examine students' knowledge-sharing barriers.

By comparing the two sectors of Higher education institutions in this research, there will be a wider understanding of what are the obstacles that students in Libyan public and private universities encounter while sharing knowledge among themselves.

This will spread awareness to the universities about the barriers that students face. which should result in implementing a knowledge-sharing culture and give them insights into what activities and programs they should focus on concerning overcoming the barriers, in terms of raising student confidence and reducing the competition between students. As far as there are no articles have been published in Libya about barriers to knowledge sharing among students. This study will add new inferences in the literature on students from a Libyan perspective.

Investigating the barriers to knowledge sharing in an organization is a necessary step in devising effective Knowledge Management (KM) initiatives (Makambe, 2014).

1.5 Scope of the Study: The study aimed to investigate the barriers to sharing knowledge, mainly, individual, organizational, and technological barriers in private and public universities in Libya.

2. LITERATURE REVIEWS

There are several barriers to knowledge sharing, this literature review focuses primarily on the barriers relating to individuals, organizations, and technology factors.

Research by Ruslie *et al.*, (2022) on Knowledge Sharing Behaviour in Malaysia Higher Education Institutions was published in Malaysia. The researchers used a questionnaire to collect a sample size of 142 academics, the distribution of the questionnaire resulted in a total of 142 responses. 70.4% of the respondents were females. Several respondents reported that not having enough time is a barrier that affects sharing knowledge among them. Also, a lack of activities to

cultivate knowledge sharing and a lack of trust among employees. Apart from that, the lack of a reward system, sufficient support for sharing, and fear of asking for knowledge from seniors are not considered barriers to knowledge sharing among academics.

A study was made on Barriers to knowledge sharing in the field of information security in Poland (Żywiołek *et al.*, 2021). The distribution of the questionnaire resulted in a total of 189 responses. This study examined knowledge-sharing barriers from two perceptions, management and employees. According to the viewpoint of the management respondents, the fear of sharing wrong information, lack of trust in others, and lack of motivation within the organization were individual barriers that most of the employees also agreed with. Employees confirmed that the most critical barrier towards knowledge sharing tends to be the factor of the organizational environment, management opinion on this point was the opposite. A majority of employees reported that they did not have enough time to share their knowledge, and the management also disagreed at this point. Both management and employees considered the lack of promotion to people who share their knowledge as a barrier hindering the sharing of knowledge.

A study was made on Advancing knowledge sharing in development organizations: Barriers (Gatiti, 2021) in Kenya. data was collected through interviews and questionnaires, with a sample size of 342 employees and managers. The questionnaire got 60% responses from males and 30% from females. Lack of time and the lack of a reward system were ranked as the most significant barriers to knowledge sharing within the organizations. Also, most of the respondents agreed that they don't share knowledge with their colleagues because of job security and the lack of trust among them. only 17.6% agreed that the lack of social networks hinders knowledge sharing to become the lowest ranking as an individual barrier. the interviewees mentioned a lack of motivation and lack of confidence are factors that limit knowledge sharing. Furthermore, they highlighted that individuals within the organization don't share knowledge with new employees. They also face organizational barriers such as a lack of leadership towards informing the benefits of sharing knowledge and a lack of knowledge sharing culture that supports knowledge sharing within the organization. moving on to technological barriers, weak Internet hinders knowledge sharing.

Akosile & Olatokun (2020) published a paper in Nigeria on Factors influencing knowledge sharing among academics at Bowen Private University. The author tested the whole population which was a total of 250 academics from six faculties at Bowen University. According to the findings, technological factors do not affect knowledge sharing negatively. moreover, moving on to the individual factors the only barrier was trust, the academics only share with people they trust.

organizational factors such as management support and reward system are not considered a barrier to knowledge sharing within the university as well as information and communications technology.

According to Ramjeawon & Rowley (2020), in their paper Enablers and Barriers to Knowledge Management in Universities. the researchers compared South Africa and Mauritius public universities. In this study a qualitative method was conducted, they used a semi-structured interview with 16 senior managers and academics. The findings indicate that organizational barriers exist in both South African and Mauritius public universities, including a lack of financial incentives, and a lack of knowledge-sharing culture. The lack of strategies and policies was a knowledge-sharing barrier in Mauritius. These barriers hindered knowledge sharing among the academic staff within the universities, whereas these public universities did not face any technological barriers.

A study was done on Enablers and barriers to knowledge sharing in Australian public sector ICT projects. Primary data was conducted through semi-structured interviews with a sample size of 14 project managers from seven departments in one organization. the results after doing this research show that individual factors were the main barriers to sharing knowledge. The respondents agreed that factors from the individual levels that affect their knowledge sharing are lack of time because of long working hours, and it has been stated by one participant that lack of trust among people is a barrier meanwhile others think trust is fundamental for a project team and it is developed over time since they will be working in together. Whereas the authors stated at this point the previous studies did not agree with this and pointed to trust as a barrier. According to the respondents, the organization lacks technical support which affects the ability to share knowledge, and low awareness and realization about the information value. It was confirmed in the interviews that the organization lacks leadership and managerial direction, and lacks a reward system that encourages them to share their knowledge are not barriers to knowledge sharing (Karagoz *et al.*, 2020).

According to Blagov *et al.*, (2020), in their paper titled Knowledge Sharing Barriers in Russian Universities' Administrative Subdivisions. this study was conducted in 6 Russian universities. Primary data were collected by distributing questionnaires, the questionnaire got 106 responses from employees of the administrative subdivisions. As previous articles mentioned lack of time is a significant barrier that hinders knowledge sharing, this study confirmed that too according to its findings. Technological barriers exist in the targeted universities in terms of poor document management systems in the universities, which are not linked with all subdivisions, and losses of documents. According to the results, with Insufficient clarity of

instructions employees don't know what to exactly share due to their job security.

According to Probodha & Vasanthapriyan (2019), the data was collected through a survey in their article titled Analysis of Knowledge Sharing Barriers in Sri-Lankan Software Companies. the survey got 130 respondents. this study agreed with most of the previous literature on the lack of time as a barrier to knowledge sharing among employees, and the overloaded work schedule hinders the employees from attending activities in the organization. respondents think that knowledge is power so they will not share their knowledge with others. Communication skills are not much mentioned in previous literature. However, one of the recent papers (Heeager & Nielsen, 2013) has mentioned language and absorptive capacity as barrier factors for knowledge sharing. The researchers claimed that the respondents don't lack absorptive capacity. Meanwhile, the organizations in Sri Lanka are considered they have a multicultural environment, which results in more different languages being spoken within the organization. The researcher states that the respondents cannot share their knowledge due to language barriers among the employees.

According to Al Hawamdeh & Al-edenat (2019), in their paper titled Determinates of Barriers to Knowledge Sharing in the Hospitality Industry, which was published in Jordan. Primary data collection was used through a questionnaire that was used to a sample size of 350 managers and employees within 10 top hotels in Jordan. The questionnaire respondents were 273. The study demonstrates that individual barriers, time, and trust were the most significant barriers that hindered the share of knowledge between employees and managers. As well as the Lack of social networks. while differences in education levels between employees didn't affect the sharing of knowledge. Moreover, lack of financial rewards and lack of organizational support are organisational barriers in the industry. In addition, the lack of sophisticated information technology helping to capture and store knowledge is a barrier to Knowledge Sharing within the industry.

According to Anwar *et al.*, (2019). In their paper titled Systematic Literature Review of Knowledge Sharing Barriers and Facilitators in Global Software Development Organizations, the authors conducted a secondary data method by using 8 sources of publication data and reviewing 42 studies on knowledge-sharing barriers. These studies confirmed that factors that hinder knowledge sharing among team members that go under individual barriers are lack of trust, lack of social network, lack of motivation among employees, personal fear and shyness, incompatible professional qualifications, and lack of time to share knowledge. Individuals who become overloaded with tasks often do not get enough time to share or seek new knowledge (Al Attar & Shaalan, 2016; Amin, Aamir *et al.*, 2011). Many

studies agreed that trust is considered a barrier that limits knowledge sharing between team members. "think who you can trust to share your knowledge with" (Kukko, 2013). The Shared knowledge between team members is hindered due to the lack of absorptive capacity. Employees were frequently unable to share ideas due to task overload in the organization. Many of the selected studies confirmed that technological barriers exist in the software sector. "lack of suitable KS tools" Unfamiliarity with the available collaborative technologies also negatively impact Knowledge sharing (Kukko, 2013). Also, the lack of a central repository and resources and the lack of rewards by management limits the sharing of knowledge. According to researchers' findings, cultural barriers such as language differences and geographical barriers such as time zone differences affected team members when sharing knowledge.

In Pakistan, Rafique & Anwar (2019) published a paper on Barriers to Knowledge Sharing among Medical Students. The authors used a questionnaire to collect a sample size of 148. The questionnaire got 96 respondents. Males who participated in this study were 55 and females 40. While the majority of the participants were aged between 19 and 23, while others were nearly 18, and only 3 were above 25. According to the findings, there was a lack of knowledge-sharing culture, a lack of trust, a lack of social networks among students, and a lack of time, which limited the sharing of knowledge between students. Also, it has been mentioned that fear of sharing inaccurate information limits students from sharing knowledge, and the main barrier that has been highlighted in this article is that students only exchange information and ideas with colleagues who share with them.

Based on the findings of Mohajan (2019) in the article titled Knowledge Sharing among Employees in the Global Organization, secondary data was used, from websites, books, previously published articles, and theses. Lack of time is a barrier to knowledge sharing, which is agreed upon by other researchers; lack of proper leadership, and lack of appropriate rewards in the organization are barriers to KS (Zawawi *et al.*, 2011). From the previous studies, it is highlighted that a lack of trust and a lack of motivation are barriers to knowledge sharing within organizations. Not sharing knowledge among employees due to job security is confirmed by most of the previous literature that is limiting sharing in the organization. Also, highly skilled employees do not share their knowledge. differences in education levels, and lack of social networks (Dyer & Hatch, 2006).

According to Karasneh *et al.*, (2019), in their paper titled Factors Affecting Knowledge Sharing in Special Education, they collected data from 51 special education centres in Jorden. The distribution of the questionnaire resulted in a 78% response rate, which is 195 out of 250 specialists who received the questionnaire through email. As stated by the authors, organizational

factors have a significant influence on knowledge sharing. Also, it is being mentioned that lack of top management support and trust was a factor that affected knowledge sharing between specialists negatively. "Employees view knowledge as power, employees believe that sharing knowledge will put their career at risk, and so appears to be their unwillingness to share knowledge with workmates" (Toffler, 1990).

Remy (2018) examined knowledge sharing among academic staff in engineering colleges in India. The researcher collected data from 258 respondents to a questionnaire designed for the study. According to the respondents, most of them don't share their knowledge because of prejudice, non-cordial relationships among academics are a limiting factor to knowledge sharing, as stated by 15% of the respondents. Employees who share their knowledge don't get any reward from the organization which results in not having any motives for employees to share, which leads to an organizational barrier. 11.6% of the respondents stated that lack of adequate information and communication technology facilities is a barrier to knowledge sharing within the colleges.

In a study done on Knowledge Sharing Barriers in Vietnamese Higher Education Institutions (Van & Zyngier, 2018). Primary data was collected through a sample of 51 interviews and focus group discussions with academic staff. The findings indicate that bureaucratic management, a weak knowledge system, and a lack of absorptive capacity have an impact on sharing knowledge, whereas the management authoritarian technique used in the university limited the freedom for staff action, and also gave inattention to the creativity of the academics, and decreased their quality in sharing, which results in a lack of motivation that hinders the effectiveness of knowledge sharing. The authors emphasize that technology support limits the sharing and updating of knowledge processes among academic staff. One of the major reasons for the poor sharing of knowledge is that lecturers spend more time earning money than sharing knowledge without any incentives.

In Pakistan (Bosit-Memon *et al.*, 2018) published an article on Individual Barriers to Knowledge Sharing: Causes and Remedies A Health-Care Sector Based Study. In this study, a qualitative method was conducted, and data were collected through a semi-structured interview with 75 doctors, and other senior administrative staff from three healthcare organizations in Islamabad, Pakistan. this research examined only the individual barriers among the organization members. Based on the data analysis, service providers in this sector must share information regarding patient status, and that is the only situation where doctors/nurses share information. other than that, they only share with the individual they trust. The researchers reported that fear of sharing knowledge and providing inaccurate

information tends to make individuals unwilling to share, which is a barrier to knowledge sharing, and management has no interest in motivating and providing financial, and non-financial rewards to the employees, which results in no knowledge sharing among members. "They never organize seminars or knowledge sharing sessions nor do they motivate us for the same" (Lindsey, 2003).

The respondents argued that there is no time to share their knowledge with their colleagues due to the overload of organizational duties. In most organizations, staff members have a general complaint regarding lack of time for knowledge sharing (Lugger & Kraus, 2001). Pakistan is a multicultural country, which leads to different cultural traditions and people speaking different languages. As the study is conducted in a hospital, there are members from different regions. These differences are big barriers to knowledge sharing, as stated by the respondents. Because of these differences, colleagues only prefer sharing knowledge with others who speak the same languages and from their community groups.

A study was made in Russia on knowledge-sharing barriers in the Educational Programme Management Administrative Processes (Blagov *et al.*, 2017). The data collection was through interviews with nine employees from different subdivisions of a Russian university. The authors claimed that organizational and organizational aspects were the main barriers to knowledge sharing between the respondents in the university. Therefore, the university does not adopt the same document management system among its subdivisions. Also, the respondents confirmed that the document management system is poor. As well as the absence of conference call equipment among employees in different departments and buildings. All of these factors were highlighted by the authors as technological barriers that affect knowledge sharing between employees. Moving on to the organizational barriers, not knowing what the job tasks are and the ambiguous subordination structure discourage knowledge. also, the lack of motivation that arises from no activities of sharing within the job increases the hindrance to sharing knowledge.

Ramjeawon & Rowley (2017) published an article in Mauritius on Knowledge management in higher education institutions: enablers and barriers. After using the primary data collection method, we used semi-structured interviews with (senior academics, former Heads of departments, heads of faculties, heads of institutions, and heads of academics in 3 private universities and 7 public universities. The concluded findings were that all students and academics have access to the Internet in both private and public universities. A major barrier that has been mentioned is unstable leadership due to the frequent changes which caused a lack of knowledge-sharing culture in public universities. Respondents claimed that individuals within the

university don't share with themselves due to fear of not getting promoted, which is a significant barrier to knowledge sharing in public universities. "In Mauritius, knowledge sharing is hindered by the highly competitive nature of Mauritian higher education, characterized by its promotion system." Besides, there are no motivations or incentives that encourage them to share within public universities.

Khoza & Pretorius (2017) published a paper on factors negatively influencing knowledge sharing in software development in South Africa. After using the primary data collection method. The authors managed to collect 217 respondents to test factors that negatively influence knowledge sharing in software development in the developing country context. The study demonstrates that job security, motivational factors, and lack of time were the most affecting factors that limit knowledge sharing within the organizations. It is clear from the response that employees find it difficult to share due to the load of work, and some of them don't share because of selfishness. Moreover, the lack of a reward system and a knowledge-sharing culture in the organization means employees won't have the incentives to share.

Abdollahpour & Naji (2016) published an article titled Investigating Barriers to Sharing Knowledge from the Perspective of Shahid-Rajai Hospital's Nurses and Oil Company's employees in Gachsaran, Iran. The data were collected from 200 employees in both the hospital and the oil company through a survey. 86.5% of the respondents were female. According to the findings, the most significant factor that is considered a knowledge-sharing barrier is the lack of enough time due to the employee's tasks, which the previous researcher agreed with. Also, it has been mentioned that a lack of confidence in the organization is a barrier to knowledge sharing. Most of the respondents claimed that the lack of a knowledge-sharing culture within their workplace is an organizational barrier that hinders knowledge-sharing.

2.1 Reflection: To summarize the 20 research papers that were reviewed in this graduation project on the barriers to knowledge sharing. The majority of the articles were in higher education institutions that targeted academic and non-academic staff, and only one article targeted students. 10 out of 20 articles collected primary data using a questionnaire as an instrument to gather data, only two articles used a mixed method, and two articles were obtained from secondary data.

Based on the literature and findings, all the articles agreed that the most significant barrier that limits knowledge sharing among people is lack of time because of the overloaded work tasks. Besides trust being considered an individual barrier, 19 out of 20 articles agreed that lack of trust among individuals is a barrier to knowledge sharing. That one article did not disagree with others, but there were conflicts between respondents.

Most of them agree and others mentioned that trust should be fundamental between colleagues and should not be a barrier that hinders knowledge sharing within the organization.

In addition, the lack of a reward system, lack of support to share, and fear of asking for knowledge from individuals in different positions are not considered barriers to knowledge sharing in higher education institutions in Malaysia. Besides, there are considered barriers in the colleges of engineering in India and the healthcare sector and development organizations.

Moreover, only three articles examined absorptive capacity as an individual factor that hinders knowledge sharing. Higher education institutions and software development organizations agreed that this factor is a barrier to knowledge sharing among academic staff/employees. In contrast, software organizations in Sri Lanka didn't face any problems with that factor.

Public and private universities don't have technical problems such as lack of internet, whereas the internet is accessible to everyone. Whereas organizational barriers exist in public universities, the struggle of not having stable leadership due to the frequent changes of that position creates a lack of knowledge-sharing culture within the university. Also the lack of motivation and incentives within the organizations. Furthermore, private universities do not face a lack of trust, lack of rewards, and lack of support from the management.

Social networks among individuals are ranked as the lowest barrier to knowledge sharing. Besides, two universities agreed that the lack of activities is a barrier to knowledge sharing in universities.

Only one paper in the hospitality industry examined the lack of sophisticated information technology helping to capture and share knowledge, and it is considered a barrier to knowledge sharing. In addition, two articles in the education industry examined the lack of adequate information and communication technology, the private university didn't face any problems with ICT, while the second article disagreed with that.

In my point of view, the barriers to knowledge sharing hinder the sharing of knowledge among individuals, which will affect them and the place they are in whether it is an organization or a university. Also, there are limited studies that examine the knowledge-sharing barriers among students in universities, and bounded studies that compare the sharing of knowledge barriers between public and private universities among students.

3. THEORETICAL FRAMEWORK

Based on previous studies, numerous factors are considered influential in the process of sharing knowledge. Several frameworks have been developed that conceptualise knowledge sharing. Therefore, the perceived importance of factors negatively influencing knowledge sharing is investigated in three categories, as classified by Riege (2005) and (Kukko & Helander (2012): individual factors, technological factors, and organizational factors. Individual factors are between people caused by their perceptions and beliefs. The adoption of new technology and change is a problem; therefore, technology plays a major role in the knowledge-sharing process.

3.1 The Concept of Knowledge Sharing and Relevant Barriers: Knowledge sharing entails individuals expressing their intellectual capital to others as well as counselling colleagues in the workplace to encourage them to share their intellectual capital for individual organizational benefits. As knowledge-sharing barriers could be grouped into individual, technological, and organizational barriers, the researchers grouped barriers such as lack of time, and differences in education levels. Organizational barriers include a lack of leadership. While the barriers associated with technological factors are reluctance to use IT systems, the impact of the barriers on students' attitudes to knowledge sharing could differ from one university to another (Alhalhouli *et al.*, 2014).

Individual, organizational, and technological restrictions on knowledge sharing were emphasized by Riege (2005), who identified the following specific obstacles: fear, a low level of awareness, and poor communication.

3.2 Individual Barriers: Lack of trust has been proven to be the most important and extensively studied barrier preventing knowledge sharing, as well as differences in communication skills and a lack of social networks. Also, lacking the courage to express oneself, non-cordial relationships, and reluctance to share knowledge due to prejudice. In general, an individual is unlikely to share knowledge with another person if they do not trust the other person (Riege, 2005).

3.3 Organizational Barrier: Lack of appropriate reward system and lack of knowledge-sharing culture. Also, lack of organizational support, a lack of activities, and a lack of leadership and managerial direction (Kukko, 2013).

3.4 Technological Barriers: The lack of sophisticated information technology helping to capture and store knowledge inhibits knowledge sharing, and the lack of information and communication technology and lack of organizational rewards (Yousefi *et al.*, 2014).

3.5 Research Hypotheses:

H0a: There are no obstacles to knowledge sharing among university students in Libya;

H1a: There are obstacles to knowledge sharing among university students in Libya;

H0b: There are no significant differences among participants' responses that could be attributed to the demographic factors;

H1b: There are significant differences among participants' responses that could be attributed to demographic factors;

H0c: there are no differences between attributes participants that could be attributed to the ownership of the organization; and

H1c: there are differences between attributes participants that could be attributed to the ownership of the organization.

4. MEHODOLOGY

In this section, the methodology used in this dissertation will be presented, it will cover the research method, targeted respondents, data collection, and instrument validity.

A quantitative method was used in this study. A survey-based questionnaire was used to collect data from students of public and private universities in Libya selected by simple random sampling and distributed randomly on different social media platforms.

According to Krejcie and Morgan's table, when the population is more than 500.00, the sample size will be 384 with a 95% confidence level and an error margin of 5%. However, students in Libya are more than 500,00.

The responses gained 409, out of which 399 responses were selected.

The questionnaire included closed-ended questions and one open-ended question that were assessed on a 5-point Likert scale by respondents. SPSS 25 software was used as a statistical tool to analyze the data.

Table 1: Likert's Measurement Scale

Weighted Average	Result	Result Interpretation
1.00 - 1.79	Strongly Agree	Very Influential
1.80 - 2.59	Agree	Influential
2.60 - 3.39	Neutral	Neutral or do not know
3.40 - 4.19	Disagree	Uninfluential
4.20 - 5.00	Strongly Disagree	Very Influential

4.1 Data Collection Tool: The questionnaire was divided into four parts; the first tested the demographic factors, the second part of which was to testify to the individual barriers. The third part questions to test the organizational barriers. The fourth part tested the technological barriers. The questionnaire was pre-tested to ensure that the question wording and format were correct.

4.2 Instrument Validity: “Instrument validity is the degree to which elements of an assessment instrument are relevant to, and representative of, the targeted construct for a particular assessment purpose” (Tajib & Sugianto, 2006).

The questionnaire was adopted from Remy (2018), Al Hawamdeh & Al-edenat (2019), Makambe (2014), Ruslie *et al.*, (2022), and Kukko (2013). The questions are designed to ask the respondents about their demographic variable besides to express their views on the topic covered in the questionnaire.

5. DATA ANALYSIS

In this section, the data analysis and the findings of this research were presented. The data were analyzed using SPSS software. Several tests evaluated this study's data, including the reliability test, Cronbach alpha, Kolmogorov-Smirnov test, binomial test, Mann-Whitney test, Kruskal-Wallis test. Firstly, demographic dimensions were tested through frequency tests. Second, Cronbach alpha was employed to measure the reliability of the project. Moreover, a normality test was used to measure the normality of data distribution among participants, and the result showed that the data were not distributed normally. Non-parametric Kolmogorov-Smirnov tests were utilized in this study. Finally, this study hypothesis was examined through the binomial test to measure the three dimensions among participants, the Mann-Whitney test to measure the two independent variables, and the Kruskal-Wallis test to measure various independent variables.

5.1 Instrument Reliability

Table 2: Individual Barriers Reliability Statistics

Cronbach's Alpha	N of Items
0.706	13

Table 3: Organizational Barriers Reliability Statistics

Cronbach's Alpha	N of Items
0.814	8

Table 4: Technological Barriers Reliability Statistics

Cronbach's Alpha	N of Items
0.857	4

Table 5: Total Reliability Statistics

Cronbach's Alpha	N of Items
0.859	25

“Cronbach's alpha is used to measure the consistency or reliability between several items; measurements are also used to check on the stability of the instrument that measures the research variables. Cronbach's alpha shows the degree of internal consistency. It is a meaning of the number of factors in the scale and the degree of their inter-correlations; in addition, it measures the proportion of variability that is shared among factors” (Nawi *et al.*, 2020).

Table 2 shows individual barriers reliability = 0.706, while Table 3 shows organizational barriers = 0.814, Table 4 shows technological barriers = 0.857, and Table 5 shows the total reliability is 0.859. Therefore, the results indicate that the questionnaire is reliable and can be used in this study.

5.2 Normality Test

Table 6: Normality Test

	Kolmogorov-Smirnov		
	Statistic	df	Sig.
Individual Barriers	0.053	399	0.010
Organizational Barriers	0.092	399	0.000
Technological Barriers	0.132	399	0.000
Barriers	0.081	399	0.000

The normality test is conducted to determine how the study's data is distributed. The Kolmogorov-Smirnov normality test was used to determine the data's normality. This normality test is the most appropriate under certain circumstances. That's the ratio of two normal distribution variance numbers based on n observations in a random sample (Royston, 1982).

The normality test findings show that individual, organizational and technological barriers are not significant at less than 0.05. However, the Kolmogorov-Smirnov test indicates that the data is not normally distributed. Therefore, non-parametric tests will be used to determine the statistical findings of this study.

5.3 Demographic Information Analysis: In the first section of the questionnaire, the respondents' demographic information was collected, including gender, nationality, age group, year of study, university, and sector.

Table 7: Gender

Gender	N	Mean Rank	Sum of Ranks
Female	287	197.62	56716.00
Male	112	206.11	23084.00
Total	399		

Table 7 shows that the majority of respondents were females (287), while males made up 112 of the sample size.

Table 8: Nationality

Nationality	N	Mean Rank	Sum of Ranks
Non-Libyan	7	122.93	860.50
Libyan	392	201.38	78939.50
Total	399		

Table 8 shows that the majority of the respondents were Libyan resident students in Libya, as

they represent 392 of the sample, and 7 are non-Libyan students who live in Libya.

Table 9: Age Group

Age	N	Mean Rank
18 - less than 20	88	200.48
20 - less than 25	246	198.31
25 - less than 30	57	206.66
30 and over	8	199.13
Total	399	

Table 9 shows that 246 of the respondents are between the ages 20-25, meanwhile, 88 of the respondents are between the ages 18-20, 57 of the

respondents are between the ages 25-30, and only 8 of the respondents are between the ages 30 and above.

Table 10: Year of Study

Year of Study	N	Mean Rank
Year one (first, second term)	96	216.33
Year two (third, fourth term)	78	194.71
Year three (fifth, sixth term)	58	183.22
Year four (seventh, eighth term)	75	204.92
Year five or above	92	194.02
Total	399	

Table 10, shows that most respondents are in year one, representing 96 of the sample size, while 78 were in year two; meanwhile, students in years four and

five represent 75 and 92, respectively, and only 58 were in year three.

Table 11: Sector

Sector	N	Mean Rank	Sum of Ranks
Private University	89	153.69	13678.00
Public University	310	213.30	66122.00
Total	399		

5.4 Hypotheses Testing

The one-sample binomial test compares the proportion variable to a hypothesized value to make

statistical inferences about it. The normal estimate or binomial enumeration is the two ways to determine the power of such a test.

Table 12: Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
Individual barriers	Group 1	<= 3	41	0.10	0.50	0.000
	Group 2	> 3	358	0.90		
	Total		399	1.00		
Organizational barriers	Group 1	<= 3	37	0.09	0.50	0.000
	Group 2	> 3	362	0.91		
	Total		399	1.00		
Technological barriers	Group 1	<= 3	80	0.20	0.50	0.000
	Group 2	> 3	319	0.80		
	Total		399	1.00		

Table 12 shows that the binomial test indicates that the exact significance is 0.000, less than 0.05. This results in rejecting H_0 “no obstacles for knowledge

sharing among university students in Libya” and accepting H_1 “there are obstacles for knowledge sharing among university students in Libya.”

Table 13: Mann-Whitney Test

	Gender	N	Mean Rank	Sum of Ranks	Asymp. Sig. (2-tailed)
Barriers	Female	287	197.62	56716.00	0.509
	Male	112	206.11	23084.00	
	Total	399			

The Mann-Whitney is a nonparametric test that is used to see if two independent groups have a difference in the dependent variable. It analyzes if the dependent variable's distribution is the same for the two groups, implying that they are from the same population (McKnight & Najab, 2010).

The Mann-Whitney test in Table 13 indicates that sig equals 0.509, which results in accepting H_0 : “There are no significant differences among participant responses that could be attributed to gender factors” and rejecting H_1 : “There are significant differences among participant responses that could be attributed to gender factors.”

Table 14: Mann-Whitney Test

	Nationality	N	Mean Rank	Sum of Ranks	Asymp. Sig. (2-tailed)
Barriers	Non-Libyan	7	122.93	860.50	0.074
	Libyan	392	201.38	78939.50	
	Total	399			

The Mann-Whitney Test in Table 14 indicates that sig equals 0.074, which results in accepting H_0 : “There are no significant differences among participant responses that could be attributed to nationality factors”

and rejecting H_1 : “There are significant differences among participant responses that could be attributed to nationality factors.”

Table 15: Kruskal-Wallis Test

	Year of Study	N	Mean Rank	Asymp. Sig.
barriers	Year one (first, second term)	96	216.33	0.448
	Year two (third, fourth term)	78	194.71	
	Year three (fifth, sixth term)	58	183.22	
	Year four (seventh, eighth term)	75	204.92	
	Year five or above	92	194.02	
	Total	399		

The Kruskal-Wallis test, also known as the "one-way ANOVA on ranks," is a rank-based nonparametric test that can be used to see if two or more groups of an independent variable on a continuous or ordinal dependent variable have statistically significant differences (Singh *et al.*, 2013).

The Kruskal-Wallis test in Table 15 indicates that sig equals 0.448, which results in accepting H_0 : “There are no significant differences among participant responses that could be attributed to year of study factor,” and rejecting H_1 : “There are significant differences among participant responses that could be attributed to year of study factors.”

Table 16: Kruskal-Wallis Test

	Age	N	Mean Rank	Asymp. Sig.
barriers	18 - less than 20	88	200.48	0.970
	20 - less than 25	246	198.31	
	25 - less than 30	57	206.66	
	30 and over	8	199.13	
	Total	399		

The Kruskal-Wallis test in Table 16 indicates that sig equals 0.970, which results in accepting H_0 : “There are no significant differences among participant responses that could be attributed to age group factor”

and rejecting H_1 : “There are significant differences among participant responses that could be attributed to the age of group factors.”

Table 17: Mann-Whitney Test

	Sector	N	Mean Rank	Sum of Ranks	Asymp. Sig. (2-tailed)
Barriers	Private University	89	153.69	13678.00	0.000
	Public University	310	213.30	66122.00	
	Total	399			

The Mann-Whitney test in Table 17 indicates that sig equals 0.000, which results in accepting *H1*: “There are significant differences among participant responses that could be attributed to sector factors” and rejecting *H0*: “There are no significant differences

among participant responses that could be attributed to sector factors.”

Descriptive Statistics:

Table 18: Individual Barriers (Private Sector) Descriptive Statistics

	N	Mean	S.D.
Lack of contact time during lectures as a barrier to knowledge sharing	89	3.36	1.121
Lack of awareness among students about the information value is a barrier to knowledge sharing	89	3.76	1.128
Lack of trust among students as a barrier to Knowledge Sharing	89	3.93	1.126
Fear of sharing inaccurate information as a barrier to Knowledge Sharing	89	2.44	1.461
The lack of social networks among students is a barrier to Knowledge Sharing	89	3.75	1.100
Students only share with those who share with them	89	3.94	1.059
Lacking the courage to express oneself is a barrier to sharing knowledge	89	4.00	0.941
Non-Cordial relationships among students	89	3.76	1.225
Reluctance to share knowledge due to prejudice	89	3.33	1.166
Lack of absorptive capacity of the recipient	89	3.74	1.006
Differences in educational years	89	3.38	1.173
Students don't share knowledge because of their poor written communication skills	89	3.17	1.069
Students don't share knowledge because of their poor verbal communication skills	89	3.61	1.094
Valid N (listwise)	89	3.524	0.66654
a. Sector = Private University			

Table 18 shows that the main barriers to private university students are the lack of courage to express themselves, lack of trust among students, and only sharing with those who share knowledge with them.

According to the respondents' answers, lack of awareness about the information value, lack of absorptive capacity of the recipient, non-cordial relationships among students, lack of social networks

among students, and poor verbal communication skills have a high negative effect on knowledge sharing. While Student's poor written communication skills, differences in educational years, and reluctance to share knowledge due to prejudice affect knowledge sharing among students. In addition, lack of contact time during lectures has a low effect on knowledge sharing compared to other factors. The lowest-ranked barrier is the fear of sharing inaccurate information.

Table 19: Individual Barriers (Public Sector) Descriptive Statistics

	N	Mean	S.D.
Lack of contact time during lectures as a barrier to knowledge sharing	310	3.46	1.090
Lack of awareness among students about the information value is a barrier to knowledge sharing	310	4.07	1.064
Lack of trust among students as a barrier to Knowledge Sharing	310	4.06	1.009
Fear of sharing inaccurate information as a barrier to Knowledge Sharing	310	2.64	1.362
The lack of social networks among students is a barrier to Knowledge Sharing	310	3.81	0.986
Students only share with those who share with them	310	3.83	1.052
Lacking the courage to express oneself is a barrier to sharing knowledge	310	4.03	1.004
Non-Cordial relationships among students	310	4.02	0.955
Reluctance to share knowledge due to prejudice	310	3.36	1.151
Lack of absorptive capacity of the recipient	310	3.61	1.085
Differences in educational years	310	3.15	1.188
Students don't share knowledge because of their poor written communication skills	310	3.11	1.109
Students don't share knowledge because of their poor verbal communication skills	310	3.55	1.084
Valid N (listwise)	310	3.7130	0.49031
a. Sector = Public University			

Table 19 shows that the main four barriers to students sharing their knowledge in public universities are a lack of awareness about the information value, a lack of trust, a lack of courage to express themselves, and non-cordial relationships among students.

Also, the lack of social networks, students only sharing knowledge with those who share with them, lack of absorptive capacity of the recipient, and students not sharing knowledge because of their poor verbal communication skills have a high effect on the knowledge sharing among students.

According to the responses, poor written communication skills, differences in educational years, reluctance to share knowledge due to prejudice, and lack of contact time during lectures have a low effect on knowledge sharing compared to the other factors among students in public universities in Libya.

In addition, the fear of sharing inaccurate information does not have a significant effect on knowledge sharing among students in public universities in Libya.

Table 20: Organizational Barriers (Private Sector) Descriptive Statistics

	N	Mean	S.D.
Lack of incentives to encourage knowledge sharing	89	3.97	0.935
Lack of organizational support hinders Knowledge Sharing in the university	89	3.75	1.014
No rewards for students who share knowledge	89	3.65	1.139
Lack of technology and modern methods as a barrier to knowledge sharing	89	3.78	1.165
Lack of a knowledge-sharing culture	89	3.66	1.128
Lack of activities to share knowledge at my university. (seminars, presentations)	89	3.45	1.225
Lack of knowledge sources in the university library	89	3.36	1.281
Lack of leadership and managerial direction in terms of clearly communicating the benefits and values of knowledge-sharing practices	89	3.65	1.119
Valid N (listwise)	89	3.6529	0.78206
a. Sector = Private University			

Table 20 shows that the main barrier among students is the lack of incentives to encourage knowledge sharing.

According to the responses, the lack of leadership and managerial direction, lack of organizational support, no rewards system, lack of

technology and modern methods, and lack of a knowledge-sharing culture have a high effect on knowledge-sharing among students. While lack of activities and lack of knowledge sources in the university is ranked as having the lowest effect on knowledge sharing among students.

Table 21: Organizational Barriers (Public Sector) Descriptive Statistics

	N	Mean	S.D.
Lack of incentives to encourage knowledge sharing	310	4.33	0.810
Lack of organizational support hinders Knowledge Sharing in the university	310	4.24	0.832
No rewards for students who share knowledge	310	3.86	1.124
Lack of technology and modern methods as a barrier to knowledge sharing	310	4.15	1.089
Lack of a knowledge-sharing culture	310	4.20	0.956
Lack of activities to share knowledge at my university. (seminars, presentations)	310	4.28	0.918
Lack of knowledge sources in the university library	310	3.84	1.205
Lack of leadership and managerial direction in terms of clearly communicating the benefits and values of knowledge-sharing practices	310	4.16	0.895
Valid N (listwise)	310	4.0674	0.58392
a. Sector = Public University			

Table 21 shows that lack of incentives, lack of organizational support, lack of activities, lack of a knowledge-sharing culture, lack of leadership and managerial direction, and lack of technology and modern methods are the main barriers that hinder knowledge-sharing among students.

No rewards for students who share knowledge, and lack of knowledge sources in the university have a high effect on the knowledge-sharing among students. Furthermore, all of the factors have a significant effect on knowledge sharing among students.

Table 22: Technological Barriers (Private Sector) Descriptive Statistics

	N	Mean	S.D.
Lack of Adequate Information and Communication Technology Facilities (computer labs, electronic whiteboards)	89	3.45	1.234
Students have no access to the Internet at the university	89	3.16	1.373
Students have no access to the computers at the university	89	3.47	1.431
The lack of sophisticated information technology helping to capture and store knowledge inhibits Knowledge Sharing within the organization	89	3.69	1.276
Valid N (listwise)	89	3.4410	1.16350
a. Sector = Private University			

Table 22 shows that the main barrier is the lack of sophisticated information technology that helps to capture and store knowledge.

Lack of adequate information and communication technology facilities (computer labs, electronic whiteboards) and no access to the Internet and computers at the university has a significant impact on the sharing of knowledge between students.

Table 23: Technological Barriers (Public Sector) Descriptive Statistics

	N	Mean	S.D.
Lack of Adequate Information and Communication Technology Facilities (computer labs, electronic whiteboards)	310	4.07	1.064
Students have no access to the Internet at the university	310	3.98	1.150
Students have no access to the computers at the university	310	3.98	1.159
The lack of sophisticated information technology helping to capture and store knowledge inhibits Knowledge Sharing within the organization	310	4.08	1.027
Valid N (listwise)	310	4.0282	0.89260
a. Sector = Public University			

Table 23 shows that the lack of sophisticated information technology that helps to capture and store knowledge, the lack of adequate information and communication technology facilities (computer labs, electronic whiteboards), and no access to the Internet and computers at the university are barriers hindering knowledge sharing. All of these factors are the main technological barriers to knowledge sharing among students in public universities.

Reflection on Individual Barriers in Public and Private Sectors: As a result, the main individual barriers that limit students in public and private universities to sharing knowledge are trust and lack of courage to express themselves, where students only share with colleagues they trust, while in the private sector, one of the main barriers is students are only sharing with those who share with them, and one of the main barriers in public universities is a non-cordial relationship among students. In addition, prejudice, differences in educational years between students, poor written communication skills, and lack of contact time during lectures are barriers to students that have a low effect on knowledge sharing in public universities as well as private universities compared to other individual factors. And students in both sectors mentioned that fear of sharing inaccurate information doesn't have a significant effect on the sharing of knowledge.

Reflection on Organizational Barriers in Public and Private Sectors: As a result of the comparison of public and private universities, the lack of incentives to encourage knowledge sharing is the main barrier in both private and public sector universities. In private universities, students claimed that lack of activities has a low effect on knowledge sharing compared to other organizational barriers, while in public universities students highlight this factor as the main organizational barrier to knowledge sharing within the universities. According to the results, all of the factors have a significant effect on knowledge sharing among students in Libyan universities.

Reflection on Technological Barriers in Public and Private Sectors: Public and private universities share the same barriers with regard to technological barriers that limit knowledge sharing among students.

6. DISCUSSION

This study shows that public and private university students experience a lack of knowledge sharing among themselves, regarding individual, organizational, and technological barriers. Moreover, these barriers highly affected the sharing between students in universities.

According to the finding, demographic attributes as seen in Table 7, the majority of the respondents are females, and the minority are males. Which agrees with Ruslie *et al.*, (2022).

As a result of the findings and the literature, there was an agreement in all of the reviewed articles that technological barriers hinder knowledge sharing.

In addition, Table 11 indicates the difference between the number of respondents from public universities and those from private universities. Whereas 310 of the total response rate was from students in public universities, while Table 10 indicates that the majority of participants were in years one and five and above. Respectively, 96,92, while students in years two and four represent 78,57. And only 58 students were in year three. Furthermore, the majority of the respondents are Libyans, representing 392, while only 7 of the respondents were non-Libyans.

The researcher found that their agreement with Rafique & Anwar (2019), Al Hawamdeh & Al-edenat (2019), and Anwar *et al.*, (2019) regarding the lack of social networks among students is a barrier to knowledge sharing among students.

This study agrees with Akosile & Olatokun (2020), Rafique & Anwar (2019), and Anwar *et al.* (2019) regarding trust as a knowledge-sharing barrier among students.

Karasneh *et al.*, (2019), Anwar *et al.*, (2019), Basit-Memon *et al.*, (2018), Żywiolek *et al.*, (2021), Gatiti (2021), and Ruslie *et al.*, (2022) confirmed that trust is an individual barrier that hinders knowledge sharing. This is in contrast to Karagoz *et al.*, 's (2020) findings. On the other hand, this research found that students only share with those who share with them; these results agreed with the results of Rafique & Anwar (2019). This study found that non-cordial relationships among students and reluctance to share knowledge due to prejudice highly affect knowledge sharing among students, which agrees with Remy's (2018) study. Only three articles examined absorptive capacity as an individual barrier, and only two studies conform with this study's findings that this factor hinders knowledge sharing (Van Ta, *et al.*, 2018; Anwar *et al.*, 2019) and contradicts (Probodha & Vasanthapriyan, 2019).

According to the findings, it has been confirmed that public universities lack incentives to encourage knowledge sharing, which agrees with Khoza & Pretorius (2017) and Veer Ramjeawon & Rowley (2017).

The result of the study indicates that the lack of a knowledge-sharing culture in public and private universities highly affects knowledge-sharing, which agrees with Abdollahpour & Naji (2016), and Gatiti (2021). Their studies mentioned that a lack of knowledge-sharing culture is a barrier to knowledge-sharing in public universities. The results also agree with Khoza & Pretorius (2017) and Veer Ramjeawon & Rowley (2020).

On the other hand, universities that do not provide many activities that encourage knowledge sharing are also a barrier among students in public and private universities, these studies also stated that lack of activities is a barrier to knowledge sharing (Blagov *et al.*, 2017; Ruslie *et al.*, 2022).

Apart from that, Probodha & Vasanthapriyan (2019) disagree with the current studies, which claim that there are enough activities but there is no time to attend them.

This research also agrees with Rafique & Anwar (2019), who confirmed that lack of time is a barrier to knowledge sharing among students in the university. This study also agrees with the statements by Al Hawamdeh & Al-edenat (2019); Khoza & Pretorius (2017); Karagoz *et al.*, (2020); Anwar *et al.*, (2019); Basit-Memon *et al.*, (2018); Żywiolek *et al.*, (2021); Abdollahpour & Naji (2016); Gatiti (2021); Blagov *et al.*, (2020); Probodha & Vasanthapriyan (2019); Mohajan (2019); and Ruslie *et al.*, (2022), as there is an agreement among the participant that the lack of time is a significant barrier to knowledge sharing.

This study indicates that the lack of adequate information and communication technology facilities such as computer labs and electronic whiteboards is a barrier in public and private universities, which contradicts Akosile & Olatokun's (2020) and Remy's (2018) findings. However, their studies stated that private universities did not face any problems with a lack of ICT.

Ramjeawon & Rowley (2017) found in their study that public and private universities give access to the internet to students, which agrees with this study's finding.

7. CONCLUSION

This paper aimed mainly to study the barriers to knowledge sharing among students, this research targeted students in all Libyan universities by distributing online questionnaires. 409 questionnaires were received, and only 399 were valid for analysis.

The study's primary aims were to identify three main goals, which are to describe what are the barriers students face when sharing knowledge, to compare the differences between the public university student and private university student perceptions regarding knowledge-sharing barriers, and to identify if there are any significant differences among participants' responses that could be attributed to demographic information.

The results of the study showed that knowledge sharing among students in Libyan universities is highly affected by individual, organizational and technological barriers.

The findings indicate that students in Libyan universities share the same individual barriers in terms of not sharing knowledge due to the lack of trust and the lack of courage to express themselves. Also, the fear of sharing inaccurate information doesn't have a significant effect on knowledge sharing among students in public universities in Libya.

However, there was an agreement in the responses that the lack of incentives to encourage knowledge is the highest-ranked organizational barrier that hinders the sharing of knowledge among students.

Additionally, students confirmed that technological barriers also have a negative effect on knowledge sharing among them, all of the targeted university students agreed that the lack of sophisticated technology that helps to capture and store knowledge limits knowledge sharing

7.1 Recommendations & Implications:

After analyzing the findings, the researcher found that the individual, organizational, and technological barriers highly affect knowledge sharing among students in Libyan universities. In addition, the researcher recommends the Ministry of Education in Libya acknowledge the importance of knowledge sharing among students, therefore, this research could help in developing the public and private universities' policies to provide more activities that will encourage students to share knowledge and which will make students understand the value of knowledge sharing.

We also recommend universities improve their strategies regarding knowledge-sharing culture creation, which will benefit the students' life after graduation, and minimize the barriers to knowledge-sharing among themselves.

7.2 Limitations: This study has potential limitations, which can give chances for extensive studies to fill in the gaps.

We excluded geographic barriers and cultural barriers because they are irrelevant to the Libyan context, where these barriers examine time zone differences and language differences, as all the people in Libya speak the same language and there are no time differences from city to city; 2). This study only focuses on students and universities in Libya; 3) 71.9% of the respondents were females; and 4) limited timeframe.

Also, there are limited studies that compare the two sectors, and nearly no studies are conducted in Libya.

Finally, there are limited articles on barriers to sharing knowledge that target students from 2016 to 2022.

7.3 Future Studies:

For future study, we recommend investigating what are the enablers of knowledge-sharing and examining knowledge-sharing barriers among students in schools.

REFERENCES

- Abdollahpour, N., & Naji, S. (2016). Investigating barriers to sharing knowledge from the perspective of Shahid-Rajai Hospital. *Journal of Chemical and Pharmaceutical Research*, 8(3), 108–111.
- Aguolu, I.E., & A. T. A. (2002). Nigerian university libraries: What future? *International Information and Libraries Review*, 28(3), 261–274.
- Akosile, Adedolapo and Olatokun, W. (2020). Factors influencing knowledge sharing among academics in Bowen University, Nigeria. *Journal of Librarianship and Information Science*, 52(2), 410–427.
- Al Attar, Fuad and Shaalan, K. (2016). Enablers and barriers of knowledge spiral: A case study. In *Proceedings of the The 11th International Knowledge Management in Organizations Conference on The changing face of Knowledge Management Impacting Society* (pp. 1–8).
- Al Hawamdeh, Nayel and Al-edenat, M. (2019). Determinants of barriers to knowledge sharing in the Jordanian hospitality industry. *International Business Research*, 12(7), 121–132.
- Alhalhouli, Zaid T & Hassan, Z and Der, C. S. (2014). Factors affecting knowledge sharing behavior among stakeholders in Jordanian hospitals using social networks. *International Journal of Computer and Information Technology*, 3(5), 919–928.
- Amin, Aamir and Basri, Shuib and Hassan, Mohd Fadzil and Rehman, M. (2011). Software engineering occupational stress and knowledge sharing in the context of global software development. In *2011 National Postgraduate Conference* (pp. 1–4).
- Anwar, R., Rehman, M., Wang, K. S., & Hashmani, M. A. (2019). Systematic Literature Review of Knowledge Sharing Barriers and Facilitators in Global Software Development Organizations Using Concept Maps. *IEEE Access*, 7(c), 24231–24247. <https://doi.org/10.1109/ACCESS.2019.2895690>
- Basit-Memon, M. A., Mirani, M. A., & Bashir, S. (2018). A Qualitative Research On Individual Barriers to Knowledge Sharing: Causes and Remedies A Health-Care Sector Based Study. *IBT Journal of Business Studies (JBS)*, 2(2).
- Blagov, Evgeny and Begler, Alena and Pleshkova, A. (2020). Knowledge Sharing Barriers in Russian Universities' Administrative Subdivisions. *Electronic Journal of Knowledge Management*, 18(2), pp172--184.
- Blagov, Evgeny and Pleshkova, Anastasiia and

- Soldatkin, Emil and Koritckiy, N. (2017). Knowledge sharing barriers in the educational program management administrative processes: a case of a bachelor program in a Russian university. *Electronic Journal of Knowledge Management*, 15(2), pp113-125.
- Boateng, Henry and Agyemang, Franklin Gyamfi and Okoe, Abednego Feehi and Mensah, T. D. (2017). Examining the relationship between trustworthiness and students' attitudes toward knowledge sharing. *Library Review*, 66(1/2), 16–27.
 - Chikoor, Lesley and Ragsdell, G. (2013). Knowledge sharing in higher education: a study of students preparing assessed group work. *Journal of Knowledge Management Practice*.
 - Connelly, Catherine E and Kevin Kelloway, E. (2003). Predictors of employees' perceptions of knowledge sharing cultures. *Leadership & Organization Development Journal*, 24(5), 294–301.
 - Dyer, Jeffrey H and Hatch, N. W. (2006). Relation-specific capabilities and barriers to knowledge transfers: creating advantage through network relationships. *Strategic Management Journal*, 27(8), 701–719.
 - Gatiti, P. (2021). Advancing knowledge sharing in development organisations: Barriers, enablers and strategies. *Library Philosophy and Practice (e-Journal)*.
 - Heeager, Lise and Nielsen, P. A. (2013). Agile software development and the barriers to transfer of knowledge: an interpretive case study. In *Nordic Contributions in IS Research: 4th Scandinavian Conference on Information Systems, SCIS 2013, Oslo, Norway, August 11-14, 2013. Proceedings 4* (pp. 18–39).
 - Ipe, M. (2003). Knowledge sharing in organizations: A conceptual framework. *Human Resource Development Review*, 2(4), 337–359.
 - Karagoz, Yakub and Whiteside, Naomi and Korthaus, A. (2020). Context matters: enablers and barriers to knowledge sharing in Australian public sector ICT projects. *Journal of Knowledge Management*, 24(8), 1921–1941.
 - Karasneh, Abed Al-Fatah and Al-zoubi, M. (2019). Factors affecting knowledge sharing in special education—AJ ordanian study. *Knowledge and Process Management*, 26(1), 41–50.
 - Katz, Ralph and Allen, T. J. (1982). Investigating the Not Invented Here (NIH) syndrome: A look at the performance, tenure, and communication patterns of 50 R & D Project Groups. *R&D Management*, 12(1), 7–20.
 - Khoza, L. T., & Pretorius, A. B. (2017). Factors negatively influencing knowledge sharing in software development. *South African Journal of Information Management*, 19(1), 1–9.
 - Krejcie, RV & Morgan, D. (1970). Sample size determination table. *Educational and Psychological Measurement*, 30, 607–610.
 - Kukko, Marianne & Helander, N. (2012). Knowledge sharing barriers in growing software companies. In *2012 45th Hawaii International Conference on System Sciences* (pp. 3756–3765).
 - Kukko, M. (2013). Knowledge sharing barriers in organic growth: A case study from a software company. *The Journal of High Technology Management Research*, 24(1), 18–29.
 - Lindsey, K. L. (2003). *Unmasking barriers to knowledge sharing using a communication framework*. The University of Memphis.
 - Lugger, K.-M., & Kraus, H. (2001). Mastering the Human Barriers in Knowledge Management. *J. Univers. Comput. Sci.*, 7(6), 488–497.
 - Majid, Shaheen and Wey, S. M. (2011). Knowledge sharing behavior of graduate students. In *Global aspects and cultural perspectives on knowledge management: emerging dimensions* (pp. 113–125). IGI Global.
 - Makambe, U. (2014). The barriers to knowledge sharing in a private higher education institution in Botswana: An empirical investigation. *Future*, 4(11).
 - McKnight, Patrick E & Najab, J. (2010). Mann-Whitney U Test. *The Corsini Encyclopedia of Psychology*, 1–1.
 - Mohajan, H. K. (2019). Knowledge sharing among employees in organizations. *Journal of Economic Development, Environment and People*, 8(1), 52–61.
 - Naw, Farahiyah Akmal Mat and Tambi, Abdul Malek A and Samat, Muhammad Faizal and Mustapha, W. M. W. (2020). A review on the internal consistency of a scale: the empirical example of the influence of human capital investment on Malcom Baldrige quality principles in TVET institutions. *Asian People Journal (APJ)*, 3(1), 19–29.
 - Oosterlinck, A and Leuven, K. (2002). Knowledge Management in post-secondary education: Universities (2002). *Internet. Acesso Em: Http://Www. Brint. Com/Km/Whatis. Htm*.
 - Probodha, Jayani and Vasanthapriyan, S. (2019). Analysis of knowledge sharing barriers in Sri Lankan software companies. *International Journal of Knowledge Management (IJKM)*, 15(4), 78–93.
 - Rafique, G. M., & Anwar, M. A. (2019). Barriers to Knowledge Sharing among Medical Students in Pakistan. *Journal of Hospital Librarianship*, 19(3), 235–247. <https://doi.org/10.1080/15323269.2019.1628566>
 - Remy, S. (2018). Knowledge sharing among academic staff in engineering colleges: A survey. *Journal of Advances in Library and Information Science*, 7(2), 172–176.
 - Riege, A. (2005). Three-dozen knowledge-sharing barriers managers must consider. *Journal of Knowledge Management*, 9(3), 18–35.

- Royston, J. P. (1982). An extension of Shapiro and Wilk's W test for normality to large samples. *Journal of the Royal Statistical Society: Series C (Applied Statistics)*, 31(2), 115–124.
- Ruslie, Nur Imanina Najwa and Uzir, Ahmad and Sahid, N. Z. and others. (2022). Knowledge sharing behaviour in Malaysia higher education institutions. *Journal of Information and Knowledge Management (JIKM)*, 1, 38–47.
- Singh, N Uttam and Roy, Aniruddha and Tripathi, AK and Kendall's, W. (2013). Non parametric tests: Hands on SPSS. *ICAR Research Complex for NEH Region, Umiam, Meghalaya*.
- Toffler, A. (1990). *Powershift: Knowledge, wealth, and power at the edge of the 21st century*. Bantam.
- Tojib, Dewi Rooslan & Sugianto, L.-F. (2006). Content validity of instruments in IS research. *Journal of Information Technology Theory and Application (JITTA)*, 8(3), 5.
- Van Ta, C., & Zyngier, S. (2018). Knowledge Sharing Barriers in Vietnamese Higher Education Institutions (HEIS). *International Journal of Knowledge Management*, 14(1), 51–70.
- Veer Ramjeawon, Poonam & Rowley, J. (2017). Knowledge management in higher education institutions: enablers and barriers in Mauritius. *The Learning Organization*, 24(5), 366–377.
- Veer Ramjeawon, Poonam and Rowley, J. (2020). Enablers and barriers to knowledge management in universities: perspectives from South Africa and Mauritius. *Aslib Journal of Information Management*, 72(5), 745–764.
- Wangpipatwong, S. (2009). Factors influencing knowledge sharing among university students. In *Proceedings of the 17th International Conference on Computers in Education* (pp. 800–807). Citeseer.
- Yousefi, A and Gilvar, A and Shahmirzadi, T and Keshavarz, M. (2014). Survey of researchers' information seeking behavior of Razi Vaccine and Serum Research Institute}. *Veterinary Research & Biological Products*, 27(1), 77–84.
- Yuen, T. J., & Majid, M. S. (2007). Knowledge-sharing patterns of undergraduate students in Singapore. *Library Review*, 56(6), 485–494.
- Zawawi, Azlyn Ahmad and Zakaria, Zaherawati and Kamarunzaman, Nur Zafifa and Noordin, Nazni and Sawal, Mohd Zool Hilmie Mohamed and Junos, Natrah Mat and Najid, N. S. A. (2011). The study of barrier factors in knowledge sharing: A case study in public university. *Management Science and Engineering*, 5(1), 59.
- Żywiołek, J., Rosak-Szyrocka, J., & Jereb, B. (2021). Barriers to knowledge sharing in the field of information security. *Management Systems in Production Engineering*, 29(2), 114–119.