

Knowledge-Sharing Practice in Malaysian Academic Libraries: A Mediating Role of Intention

Moussa Barry¹, Ahmed Barrie², Abubakarr Kuyateh³

¹Department of Business Administration International Islamic University Malaysia, Malaysia,

²Department of Library and Information Science, International Islamic University Malaysia,

Malaysia, ³Department of Comparative Religion, Western Michigan University, Kalamazoo

Michigan, USA

Corresponding Author Email: barrymoussa4@gmail.com

SSSSSS

To Link this Article: <http://dx.doi.org/10.6007/IJARPED/v13-i3/22066>

DOI:10.6007/IJARPED/v13-i3/21474

Published Online: 11 July 2024

Abstract

Academic libraries play a crucial role in higher education, offering access to knowledge and information for teaching, learning, and research. This study aims to determine the mediating and moderating roles of knowledge-sharing practices among librarians in five selected academic libraries in Malaysia. It also investigates the extent to which librarians participate in knowledge-sharing activities, such as collaborative projects, information dissemination, and user training. Additionally, the research investigates how these practices impact crucial outcomes, including staff satisfaction, library usage, and academic success. However, the study employs quantitative research, gathering 214 data through surveys administered to librarians and users in the Klang Valley. The study's conceptual framework integrates theories of knowledge sharing, organizational behavior, and library management. A structural equation modelling approach with Smart-PLS was employed to test the hypothesis. The findings revealed that intention fully mediates between attitude and knowledge-sharing, perceived behavioural control and knowledge-sharing, and subjective norms and knowledge-sharing. The findings also revealed that attitude fully mediates between trust-relation and intention. Additionally, the findings revealed that subjective norms fully mediate between corporate culture and intention. Hence, these findings not only enrich theoretical understanding but also offer practical implications for academic library management in Malaysia, bolstering library effectiveness, fostering collaboration, and promoting information dissemination in academic settings. These practical implications empower library managers and professionals to implement effective knowledge-sharing strategies, thus enhancing library performance and academic success.

Keywords: Knowledge-Sharing, Mediator, Moderator, Academic Library, Malaysia.

Introduction

Academic libraries are the heart of higher education, providing information and intellectual support to students and researchers. In Malaysia, these libraries are essential for promoting learning, research, and teaching in academic environments. Academic libraries'

impact and effectiveness depend on more than just their collections and infrastructure. Instead, the information-sharing practices of the librarians who manage these resources are critical. Academic scholars, librarians, and library administrators are crucial in Malaysia, contributing to research and education success.

The central focus of this study is the mediating and moderating role of librarians' knowledge-sharing practices in selected Malaysian academic libraries. Knowledge sharing, the exchange, and dissemination of information, expertise, and experiences among individuals within an organisation, is the bedrock of academic libraries. As information professionals, librarians play a pivotal role as conduits through which knowledge flows between library collections and users. Their active participation in knowledge-sharing activities, such as collaborative projects, information literacy initiatives, and user assistance, significantly influences the accessibility, usability, and effectiveness of library services (Chowdhury & Chowdhury, 2020).

Within the ever-evolving and interconnected academic landscape, comprehending how librarians' knowledge-sharing practices shape library performance and user experiences is paramount. This research endeavors to unravel the intricate interplay between organizational factors, individual characteristics, and librarians' knowledge-sharing behaviors in shaping the outcomes of academic libraries in Malaysia, offering a beacon of hope for the future of our libraries.

This study employs a robust quantitative research approach to empirically investigate the mediating and moderating effects of librarians' knowledge-sharing practices within the context of selected Malaysian academic libraries. The study involved surveying librarians and collecting organisational data and performance metrics. This rigorous methodology is designed to uncover valuable insights into the mechanisms that drive library effectiveness, user satisfaction, and academic success, thereby enhancing the credibility and reliability of the research (Ismail & Zainab, 2015).

The findings of this study hold significant implications for the theory and practice of academic library management. By uncovering the mediating pathways through which librarians' knowledge-sharing practices influence library outcomes, this research aims to provide practical insights. These insights can transform how we foster collaboration, facilitate information dissemination, and optimize resource utilization within Malaysian academic libraries. Ultimately, this research aspires to elevate the role of academic libraries as vibrant hubs of knowledge creation, dissemination, and engagement within the Malaysian higher education landscape, inspiring and exciting all of us in this field.

Literature Review

Sharing knowledge is considered one of the fundamental and pragmatic aspects of the knowledge management process. Individuals exchange knowledge, ideas, and experiences through social interaction and interpersonal relationships (Rafique et al., 2020; Ahmed & Barry, 2023). In the fast-paced and ever-changing world of academic libraries, the exchange of knowledge among librarians plays a crucial role in enhancing the organization's overall performance, promoting innovation, and improving the quality of services. Understanding the factors that facilitate and moderate knowledge-sharing practices is vital in fostering collaboration and facilitating information exchange within these institutions. This literature review examines important works and recent studies on this topic, specifically focusing on the context knowledge-sharing practice of academic libraries in Malaysia.

Theoretical Background

Theory of Planned Behaviour (TPB)

The TPB is a widely recognised model that identifies factors that influence behaviour. It can predict the type of behaviour and an individual's intention to engage in that behaviour. TPB builds upon Ajzen's earlier research on the Theory of Reasoned Action (TRA) (Ajzen et al., 2018). According to the TPB theory, an individual's attitude, behavioural intention, and perceived behavioural control determine an individual's behaviour. Professor Izack Ajzen explains that attitude towards behaviour, subjective norm, and perceived behavioural control all contribute to the behavioural intention to carry out the behaviour (Ajzen, 1991).

As Ajzen (1991) explains, behavioural intention is the motivational factor that indicates an individual's readiness to engage in a behaviour. He further argues that the stronger a person's intention, the more likely they are to perform the behaviour. According to Ajzen, the three significant variables of attitude, subjective norm, and perceived behavioural control influence actual behaviour. Firstly, as suggested by some authors, attitude towards behaviour influences behavioural intention (Barry et al., 2024b; Adenan et al., 2013). Attitude is also the extent to which an individual holds positive or negative feelings about the behaviour in question. Behavioural attitudes involve evaluations of ideas, events, objects, or people. Secondly, perceived control is a measure of the influence one has over the environment. Perceived behavioural control indicates whether the task is easy or difficult to accomplish. For example, consider the ease of sharing ideas and the effort involved. Lastly, subjective norms are attitudes and behaviours considered typical or average, and they determine the approval or disapproval of others regarding the behaviour.

In addition, the TPB theory posits that intention is a national symbol, representing a person's willingness to engage in a specific behaviour. This intention directly influences behaviour, which is determined by three factors: attitude towards the behaviour, subjective norms, and perceived behavioural control (Barry et al., 2024b; Bautista & Bayang, 2015; Kiriakidis, 2015). Kiriakidis (2015) further explains that beliefs reflect attitudes towards performing a behaviour and the perceived significance of the outcome for the individual. He also notes that attitudes towards a behaviour are influenced by the extent to which the behaviour is expected to lead to a specific outcome and the evaluation of that outcome.

The theory of planned behaviour is widely employed as an explanatory model by researchers in numerous studies on behavioural intentions (Ajzen, 2012; Ajzen & Fishbein, 2014; Lee & Al-Hawamdeh, 2002; Knabe, 2012). Furthermore, some researchers have utilised this theory to examine collective behaviours. For instance, Barry et al (2024b); Patterson (2001); Cameron (2010); Hejase et al (2014); Fahimeh and Kermani (2011); Alhalhouli et al (2014) have all employed the TPB to investigate collective behaviours. Moreover, the TPB has been applied in various studies to predict and explain a wide range of knowledge-sharing behaviours.

For example, Lin & Lee (2004) explored the applicability of the TPB in explaining senior managers' intentions to promote knowledge-sharing. Conversely, Shih & Lou (2011) used the TPB to develop a model for knowledge-sharing behaviour among Taiwanese junior high school English teachers. Lee et al (2010) utilised the TPB to examine teachers' intentions to use computers for lesson creation and delivery. Sita Nirmala and Chitale (2012) collaborated on a knowledge-sharing strategy to enhance organisational learning based on the TPB theory. Sihombing (2011) applied and measured the TPB extension to predict knowledge sharing and investigated the effects of Christian values as a moderating variable in the relationship

between attitude and intention to share knowledge. However, the data were analysed using structural equation modelling.

In addition to the theory of planned behaviour, the Social Exchange Theory (SET) can also provide a theoretical framework for understanding librarians' knowledge-sharing behaviours in a more scholarly manner. According to SET, individuals establish reciprocal relationships to exchange resources, such as knowledge and expertise, for mutual benefit (Blau, 1964). In academic library settings, social exchange processes play a crucial role in determining the extent to which librarians engage in knowledge-sharing activities with their colleagues.

Mediating Role of Knowledge-Sharing

Alavi and Leidner's (2001) research emphasizes the significance of knowledge sharing in organizational processes. According to their findings, knowledge sharing enables the transfer of explicit and tacit knowledge within organizations, ultimately enhancing decision-making and problem-solving abilities. In academic libraries, knowledge-sharing practices mediate the connection between individual characteristics (such as motivation and expertise) and organizational outcomes (including service quality and user satisfaction).

Moderating Factors Influencing Knowledge-Sharing

Several studies have identified moderating factors that influence knowledge-sharing practices among librarians. Chiu et al (2006) emphasize the role of organizational culture in shaping knowledge-sharing behaviours. They suggest that supportive organizational cultures, characterized by trust, openness, and collaboration, foster an environment conducive to knowledge-sharing initiatives. Additionally, technological factors, such as the availability of collaborative tools and information systems, can moderate the effectiveness of knowledge-sharing practices (Lin, 2007).

Contextual Considerations: Malaysian Academic Libraries

Cultural factors have a significant impact on knowledge-sharing practices in Malaysian academic libraries. Ahmad et al (2018) conducted a study to examine the role of cultural values on knowledge-sharing practices in Malaysian universities. They found that the collectivist cultural values prevalent in Malaysian society promote cooperative behaviors and information exchange among librarians. However, hierarchical structures within academic institutions may hinder knowledge-sharing initiatives by inhibiting open communication, as noted by (Foo and Norsiah, 2014).

Research Hypotheses Development

Previous studies have theoretically acknowledged the link between the theory of planned behaviour and individuals' intentions to share knowledge. These intentions are influenced by their attitudes towards knowledge-sharing, subjective norms, and perceived behavioural control (PBC) (Kiriakidis, 2015; Ranasinghe & Dharmadasa, 2013). However, when examining the research model, the researchers put forth the following hypotheses with great enthusiasm and confidence:

H₁: A higher intention towards knowledge sharing will lead to better knowledge sharing among academic librarians.

- H₂: A more positive attitude towards knowledge sharing will lead to greater intention to share knowledge among academic librarians.
- H₃: A higher level of perceived behavioural control towards knowledge sharing will lead to greater intention to share knowledge among academic librarians.
- H₄: Academic librarians would be more willing to exchange knowledge if there were more subjective guidelines for inclusive knowledge sharing.
- H₅: Academic librarians would be more willing to share their information if they have more confidence and a positive outlook.
- H₆: University librarians would be more willing to exchange knowledge if they have better teamwork capabilities regarding perceived behavioural management.
- H₇: University librarians would be more willing to exchange information if there is a higher degree of corporate culture against the subjective norm.
- H₈: Increasing library personnel's misunderstanding of social conduct would make it more important for university librarians to share correct information.

Conceptual Framework

This study examined knowledge-sharing practices in five university libraries in the Klang Valley, using the Theory of Planned Behaviour (TPB) as a theoretical framework. Secondary and tertiary data analysis methods were used to ensure the data's accuracy and gain new insights. The methodology used in this investigation is presented in Figure 1.

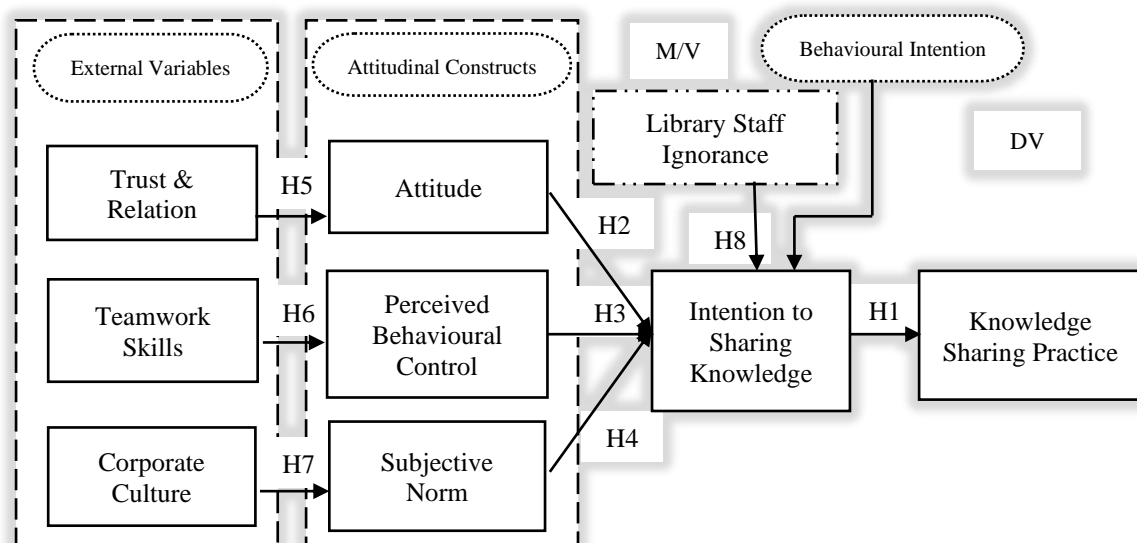


Figure 1. Conceptual Framework

Research Methodology

Research Design

The framework for analysis is crucial in research design and methodology. Research design refers to the approach used to incorporate the various processes of the study. Its goal is to establish an outline or roadmap for data collection, measurement, and analysis to ensure the successful resolution of the research issue. According to Hair et al (2016); Barry et al (2024a); Barry et al (2024c) the research design is a plan, roadmap, and blueprint for an investigation that answers research questions or tests hypotheses.

This study examines factors that affect library staff knowledge-sharing practices in the academic libraries of Malaysia, building upon existing theories and research paradigms. It utilizes a purely quantitative research approach, as Leavy (2017) clarified, employing deductive approaches to prove, disprove, or lend credence to existing theories. This involves measuring variables and testing relationships between them to uncover patterns, correlations, or any measurable aspects that shed light on events and their relationships.

The chosen method aligns with the survey used in this research paper, representing a quantitative technique with multiple-choice questions as suggested by (Barry et al., 2024a). Additionally, this design allows the researchers to focus on the factors influencing librarians' perceptions of knowledge-sharing practices. This study targets government and private university libraries in Malaysia's Klang Valley, overseen by the Ministry of Higher Education. Information was gathered from the IIUM Gombak Central Library, the UM Library, the UTM Library, the UPM Perpustakaan Sultan Abdul Samad Library, and the INTI Library, which are the most common and prominent entities in the Klang Valley or West Malaysia. The study primarily focuses on in-house factors, including staff knowledge-sharing practices.

The study's targeted population includes male and female academic staff and supporting staff working in academic libraries. The total number of library and supporting staff working at the five targeted academic libraries within the study period was 474. The researchers directed a self-administered survey based on the identified themes related to library staff knowledge-sharing practices. They also examined similarities and differences to explain the items associated with the research objectives.

Data Analysis and Results

Demographic Variables of the Respondents

The demographic responses show that most librarian answers were female, and their ages ranged between 18 and 25. Additionally, more than 60% of responders were married; this suggested that academic library employees were grown-ups. Most library employees had PhDs, master's degrees, and many advanced bachelor's degrees. Overall, respondents' academic experience ranged from one year to six years. Also, library employees have high-level knowledge-sharing capabilities. Most responders work in the section regarding offices, and middle managers hold divisions, while the most competent personnel have administration positions. Therefore, the demographic variables of the respondents are illustrated in Table 1 below.

Table 1

Demographic variables of the respondents

Personal Profile		Research Sample (n = 214)	
Category	Item	Frequency	Percentage (%)
Gender	Male	93	43.5
	Female	121	56.5
Age Group	18 – 25	84	39.3
	25 – 32	73	34.1
	32 – 39	57	26.6
Workplace	Section	84	39.3
	Division	72	33.6
	Admin	58	27.1
Marital Status	Single	69	32.2
	Married	129	60.3
	Widow	6	2.8
	Divorced	10	4.7
Education	High School	29	13.6
	Diploma	32	15.0
	Bachelor	52	24.3
	Master	78	36.4
	PhD	23	10.7
Academic Library	IIUM Library	67	31.3
	UM Library	48	22.4
	UTM Library	46	21.5
	UKM Library	44	20.6
	INTI Library	9	4.2
Work Experience	Less than 1 year	15	7.0
	1 to 2 years	29	13.6
	2 to 4 years	39	18.2
	4 to 6 years	32	15.0
	6 years & above	99	46.3

Source: Authors' Data

Assessment of Mediating and Moderating Relationship

According to Hair et al (2014), assessing PLS-SEM outcomes can also be extended to more advanced analysis, such as examining the mediating and moderating effects. According to their recommendation, the main reason for those supplementary analyses is to extend and further distinguish the findings or results from the basic PLS path model assessment (Hair et al., 2014).

Mediating Relationship

A mediating variable analysis is a balance or stability for the relationship between the predictor and the criterion Kante et al (2018), cited in Baron & Kenny's (1986) work. A mediator is also referred to as an intervening variable Garson (2016) because it transmits the effect of an independent latent variable (IV) to a latent dependent variable (DV)

(Hongdiyanto, & Liemena, 2021). According to Kante et al (2018), the controlling variable is not the focus of a research study. However, its existence strongly affects a dependent variable because it is part of the research model testing and added independent variables (cited from (Fung, 2015). Hence, a mediator is labelled a regulator variable since it is under control, monitored, or constant to differentiate the relationships between the independent and dependent variables (Fung, 2015). Above all, hypothesis testing does not contain the control (mediator) variable (Kante et al., 2018).

Hair et al (2014) indicated that the standard method for determining mediating effects is the Sobel 1982 test, which examines the relationship between the IV variable and the DV variable compared with the relationship between the IV variable and the DV variable, with the mediation construct included (cited from Helm et al., 2009). On the face of it, Sobel's 1982 test is subject to distributional assumptions.

Mediator: Intention Linkage between Attitude and Knowledge-Sharing Practice

According to the Theory of Planned Behaviour, the latent variable "intention" is measured as the primary antecedent of knowledge-sharing behaviour and a mediator between the independent and dependent variables to assess the significance of the mediating effect of intention on knowledge-sharing behaviour (Ajzen, 2012). To assess the effect of the mediating variable, this study followed the support of the previously cited scholars (Barry & Jan, 2016; Barry & Jan, 2018; Barry, 2016; Baron & Kenny, 1986; Preacher & Hayes, 2008; Henseler et al., 2009; MacKinnon & Fairchild, 2009; Klamer et al., 2013).

The assessment examines the influence of attitude, perceived behavioural control, and subjective norm on intention toward knowledge-sharing practice. However, the researcher conducted a two-fold test—the first test was conducted on the direct relationship between the IV and DV variables without a mediator; the second test was conducted with the inclusion of a mediator in the relationship between the IV variables and the DV variables (please, see Figure 2).

Subsequently, mediation analysis was achieved to assess the mediating role of intention on the linkage between attitude, perceived behavioural control, and subjective norm towards knowledge-sharing practice. As shown (Table 2), the total effect of attitude on knowledge-sharing practice was insignificant (H1: $\beta = 0.006$, $t = 0.285$, $p = 0.776$). Thus, with the inclusion of the mediating variable intention, the impact of attitude on knowledge-sharing practice became insignificant ($\beta = 0.006$, $t = 0.285$, $p = 0.776$). Moreover, the indirect effect of attitude on knowledge-sharing practice through intention was insignificant ($\beta = 0.006$, $t = 0.285$, $p = 0.776$). This result shows that the relationship between attitudes towards knowledge-sharing practice is fully mediated by intention. This result is supported by (Ahmed and Barry, 2023). However, Barry et al (2024b) found that attitude significantly affects intention.

Table 2

The Mediating Effect of Intention Linkage between ATT & KSP

Total effect (ATT → KSP)		Direct effect (ATT → KSP)		The indirect effect of ATT on KSP				
Coeff	P-value	Coeff	P-value	H2: ATT → INT → KSP	Coeff	SD	t-value	BI [0.5%; 99.5%]
0.006	0.672	0.006	0.776		0.006	0.016	0.285	-0.054→0.030

Source: Authors' Data

Mediation Analysis of Intention Linkage between Perceived Behavioural Control and KSP

The second mediation study aimed to see if intention played a role in mediating the link between PBC and knowledge-sharing practice. The overall effect of PBC on KSP was insignificant (H1: $\beta = 0.008$, $t = 0.279$, $p = 0.781$), as indicated in (Table 3). The influence of PBC on knowledge-sharing practice became insignificant when the mediating variable intention was included ($\beta = 0.008$, $t = 0.279$, $p = 0.781$). The indirect impact of PB control on knowledge-sharing practices through intention ($\beta = 0.008$, $t = 0.279$, $p = 0.781$) was insignificant. This finding suggests that intention completely mediates the relationship between PBC and knowledge-sharing practice. This finding is supported by (Ahmed and Barry, 2023). However, Barry et al (2024b) found that subjective norm significantly affects intention.

Table 3

The Mediating Effect of Intention Linkage between PBC & KSP

Total effect (PBC → KSP)		Direct effect (PBC → KSP)		The indirect effect of PBC on KSP				
Coeff	P-value	Coeff	P-value	H3: PBC → INT → KSP	Coeff	SD	t-value	BI [0.5%; 99.5%]
0.008	0.781	0.008	0.781		0.008	0.022	0.279	-0.087→0.052

Source: Authors' Data

Mediator: Intention Linkage between Subjective Norm and Knowledge-Sharing Practice

The third mediation analysis aimed to determine the role of intention in mediating the link between subjective norms and knowledge-sharing behaviour. The results showed that the total effect of subjective norm on knowledge-sharing behaviour was insignificant (H1: $\beta = -0.002$, $t = 0.075$, $p = 0.940$), as shown in (Table 4). The influence of subjective norm on knowledge-sharing practice became insignificant when the mediating variable intention was included ($\beta = -0.002$, $t = 0.075$, $p = 0.940$). The indirect influence of subjective norm on knowledge-sharing practice through intention ($\beta = -0.002$, $t = 0.075$, $p = 0.940$) was insignificant. The findings show that intention fully mediates the link between subjective norms and knowledge-sharing practice. This finding is supported by Ahmed and Barry (2023). However, Barry et al (2024b) found that subjective norm significantly affects intention. The intention mediation analysis findings are also exhibited in Figure 5.7 below.

Table 4

The mediating effect of Intention linkage between SUN & KSP

Total effect (SUN → KSP)		Direct effect (SUN → KSP)		The indirect effect of SUN on KSP				
Coeff	P-value	Coeff	P-value	H4: SUN → INT → KSP	Coeff	SD	t-value	BI [0.5%; 99.5%]
-0.002	0.940	-0.002	0.940		-0.002	0.013	0.075	-0.045→0.031

Source: Authors' Data

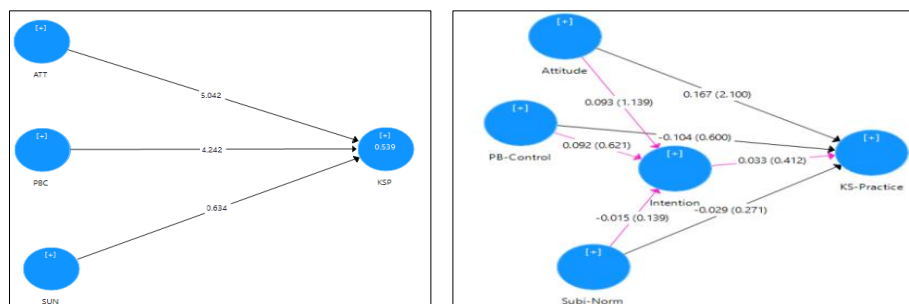


Figure 2. The mediation analysis of the Intention

Mediator: Attitude Linkage between Trust-Relation and Intention

According to planned behaviour theory, behavioural attitudes are various attitudes that focus on ideas, events, objects, or personalities. A person’s attitude determines how that individual holds a favourable or biased impression (Ajzen, 1991; Ajzen & Fishbein, 2014). Furthermore, trust and relation are concepts built on certain norms overseeing what an actor may do and how individuals behave in short-term interactions, including the uncertainty of experiencing a negative outcome.

Based on this theory, the researcher tested whether attitude influences the relationship between trust and intention. Accordingly, the total impact of trust relation on intention was significant (H2: $\beta = 0.226$, $t = 3.378$, $p = 0.001$), as exhibited in Table 5 below. The impact of trust relation on intention became insignificant when the mediating variable attitude was included ($\beta = -0.011$, $t = 0.871$, $p = 0.384$). The indirect impact of trust on intention via attitude ($\beta = -0.011$, $t = 0.871$, $p = 0.384$) was insignificant. According to the findings, attitude plays a role in mediating the connection between trust-relation and intention. Many scholars found that attitude mediates trust and intention (Ahmed & Barry, 2023; Barry, 2016; Barry & Jan, 2018; Barry & Jan, 2016). Additionally, Barry et al (2024b) found a significant relationship between attitude and intention.

Table 5

The Mediating Effect of Attitude Linkage between TRR & INT

Total effect (TRR → INT)		Direct effect (TRR → INT)		The indirect effect of TRR on INT				
Coeff	P-value	Coeff	P-value	H5: TRR → ATT → INT	Coeff	SD	t-value	BI [0.5%; 99.5%]
0.226	0.001	-0.011	0.384		-0.011	0.012	0.871	-0.040→0.018

Source: Authors' Data

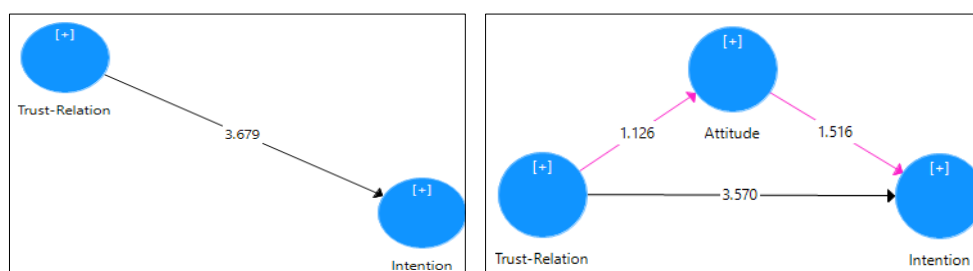


Figure 3. The mediation analysis of the Attitude

Mediator: Perceived Behavioural Control Linkage between Teamwork Skills and Intention

According to the TPB, perceived behavioural control is the degree of ease or difficulty experienced by the person’s capacity to make themselves understood (Ajzen, 2014; 2020). Accordingly, individual librarians would responsibly administer their services, according to this description, if they are confident in their capacity to acquire knowledge, skills, information, ideas, experience, abilities, mechanisms, time, and the aid of other library colleagues. Social and human capital skills, or “Teamwork Skills,” comprise several employees collaborating and managing tasks to attain a specific aim. A team or group of independent people should have their abilities reliably maintained and used daily, create unified objectives and techniques, and be devoted to the overall aim.

Though it has shown that a positive association between teamwork skill and intention exists, it has also shown that perceived behavioural control mediates this association. Because of this, in Table 6, the findings of the overall impact of teamwork skill on intention showed no statistical significance (H3: $\beta = 0.121$, $t = 1.268$, $p = 0.205$). While adding the mediating role of perceived behavioural control improves the positive correlation between teamwork skill and intention, this factor causes the overall impact of teamwork skill on intention relatively insignificant ($\beta = 0.016$, $t = 0.203$, $p = 0.839$). Another interesting finding was that a direct impact of teamwork skill on intentions through perceived behavioural control was likewise shown to be insignificant ($\beta = 0.016$, $t = 0.203$, $p = 0.839$). Therefore, the study reveals that the association between teamwork skill and perceived behavioural control entirely mediates the relationship between teamwork skill and intention. This finding is supported by Ahmed and Barry (2023). However, Barry et al. (2024b) found that perceived behavioural control significantly affects intention.

Table 6
The Mediating Effect of PB Control Linking between TWS & INT

Total effect (TWS → INT)		Direct effect (TWS → INT)		The indirect effect of TWS on INT				
Coeff	P-value	Coeff	P-value	H6: TWS → PBC → INT	Coeff	SD	t-value	BI [0.5%; 99.5%]
0.121	0.205	0.016	0.839		0.016	0.077	0.203	-0.189→0.183

Source: Authors' Data

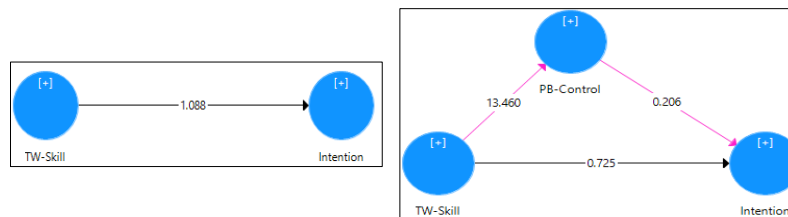


Figure 3. The Mediation Analysis of PB Control

Mediator: Subjective Norm Linkage between Corporate Culture and Intention

The term “subjective norm” describes a situation of a collective force motivated by the desire to share knowledge with others. It is concerned with everything that surrounds the individual. Subjective norm is conduct and behaviour deemed regular, usual, or average, and it is used to judge whether others approve or disapprove of the fundamental behaviour (Ajzen, 1991; Fishben & Ajzen, 2014). On the other hand, corporate culture is critical to the success of an organisation’s mission and strategy. It embodies a group's standard views, language, systems, values, assumptions, and behaviours (Morden, 2017). A test determines the mediating influence of subjective norms on the link between corporate culture and intention. Thus, as seen in Table 7, the total impact of corporate culture on intention was insignificant (H4: $\beta = 0.052$, $t = 0.116$, $p = 0.424$). Nonetheless, when the latent variable subjective norm was included in the analysis, the influence of corporate culture on intention became insignificant ($\beta = 0.024$, $t = 0.049$, $p = 0.961$). Meanwhile, the indirect influence of corporate culture on intention via subjective norm was found to be minor once again ($\beta = 0.024$, $t = 0.049$, $p = 0.961$). Therefore, according to the investigation, the subjective norm completely mediates the relationship between corporate culture and intention. This finding is supported by (Ahmed and Barry, 2023). However, Barry et al (2024b) found that subjective norm significantly affects intention.

Table 7
The Mediating Effect of Subj-Norm Linking between CRC & INT

Total effect (CRC → INT)		Direct effect (CRC → INT)		The indirect effect of CRC on INT				
Coeff	P-value	Coeff	P-value	H7: CRC → SUN → INT	Coeff	SD	t-value	BI [0.5%; 99.5%]
0.052	0.424	0.024	0.961		0.024	0.079	0.049	-0.183→0.155

Source: Authors' Data

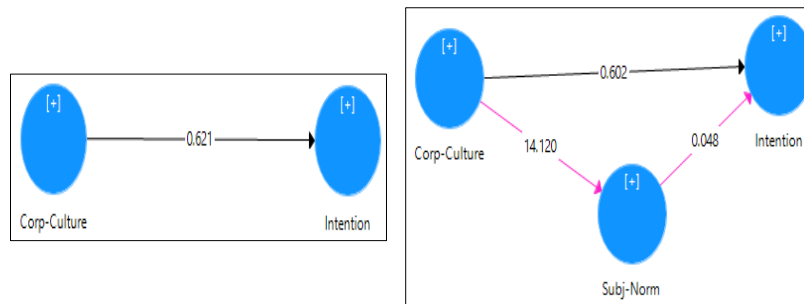


Figure 4. The mediation analysis of the Subj-Norm

In short, after carefully reviewing all the previously mentioned research findings, the conclusion is that a full mediator should identify if a test result reveals that the direct relationship between the IVs and the DV is insignificant after including the mediating variable as confirmed by (MacKinnon, 2000; Baron & Kenny, 1986; Preacher & Hayes, 2008; Guenzi et al., 2009; MacKinnon & Dwyer, 1993; Klamer et al., 2013). According to Latan et al (2017), there is a suppressor effect when the absolute value of the indirect path ($a \times b$) is greater than the absolute value of the total effect ($a \times b + c'$) (cited from the work of (Cheung & Lau, 2008)). The researchers analyse the moderating relationship of library staff ignorance in the following subsection.

Moderating Relationship

A moderator, sometimes known as a modifier, is a variable that influences the relationship between two or more other factors (Dawson, 2014). When the value of the moderator variable Z changes, the relationship between an independent variable X and a dependent variable Y change (Dawson, 2014; Baron & Kenny, 1986). The phrase “moderation,” in other words, defines a scenario in which the combination of multiple constructs does not remain constant but relies on the values of a third variable expressed as a moderator variable. Furthermore, a moderator is a qualitative or quantitative variable that influences the intensity and strength of the association between an independent or predictor variable and a dependent or criterion variable (as found in Baron & Kenny, 1986); (Kante et al., 2018). A simple way of saying this is the relationship between two variables that change as a moderator variable. Thus, Figure 5 below illustrates the regression of Y on X when M interacts.

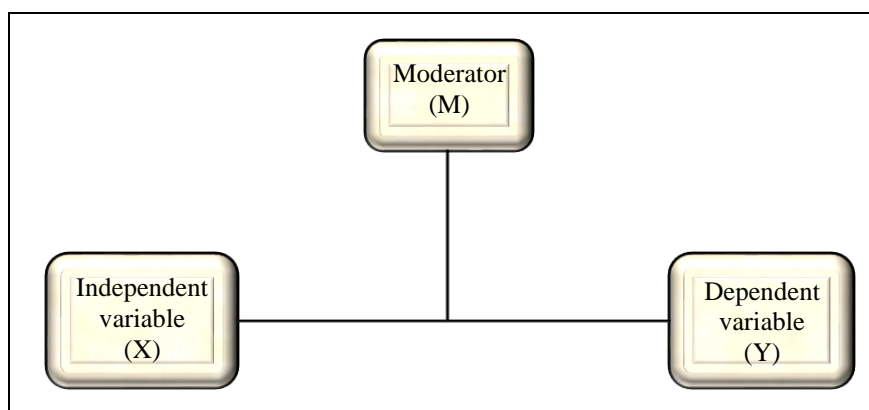


Figure 5. Conceptual diagram for moderating variable
 Source: adapted from Kante, et al. (2018); Chin (2006)

Mediator: Library Staff Ignorance Moderating between Attitude and Intention

Library staff ignorance is the condition of being ignorant, lacking information, an absence of truth or correctness, or instruction; hence, something created that one does not know about and cannot comprehend (Israilidis et al., 2015). In addition, Dawson (2014) states that a two-way interaction test is simple, as an ordinary least squares (OLS) regression analysis requires a few iterations. In saying this, Dawson laid out the argument that the dependent variable Y is reverting because of the interactive effect of XZ and the direct effects of X and Z (Dawson, 2014). According to this theory, hypothesis H8 was developed to measure the link between attitude and intention. More library staff ignorance regarding behavioural attitude would lead to a more definite purpose to communicate accurate knowledge among academic library staff. However, the researcher conducted a test to establish if the moderating impact of library staff ignorance on the connection between attitude and intention is significant, considering that attitude is the IV and intention is the DV. Thus, the research examines the interaction term's coefficient.

The results revealed that library staff ignorance moderates the relationship between attitude and intention ($\beta = 0.113$, $t = 1.048$, $p = 0.295$); the moderation effect was insignificant. The analysis shows that the relationship between library staff ignorance and intention has a standard error of ($\beta = 0.172$, $t = 2.286$, $p = 0.023$), and the moderation effect is significant. However, results revealed that library staff ignorance impacts the intention to share, as shown in Figure 6, at a higher level. Further, with the inclusion of the interaction effect of library staff ignorance, the coefficient has a standard error of ($\beta = -0.045$, $t = 0.661$, $p = 0.509$); the results revealed that at lower-level library staff ignorance, the attitude was found to have a weaker or negative impact on intention. Therefore, the results of the moderating effect of library staff ignorance are shown in Table 8 below, and Table 9 illustrates the gradient of slope for low and high library staff ignorance.

Table 8

The Moderating Effect of Library Staff Ignorance

Hypothesis	Relationship	Std Beta	Std Error	t-value	95% CI UL	95% CI LL
H2	Attitude -> Intention	0.113	0.101	1.048	-0.223	0.186
H8	LibSt-Ignor -> Intention	0.172	0.075	2.286	0.055	0.289
H8	LibSt-Ignor -> Attitude -> Intention	-0.045	0.042	0.661	-0.059	0.132

Source: Authors' Data

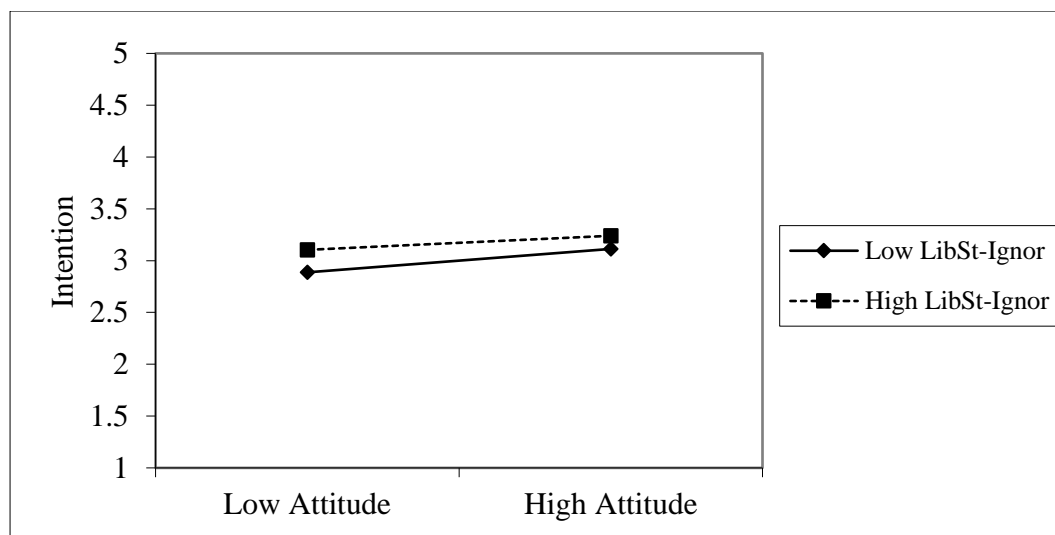


Figure 6. Moderating effect of library staff ignorance on the behavioural attitude toward intention to share (two-way interaction with continuous moderator)

Table 9

Explains Gradient of Slope for Low and High Library Staff Ignorance

The gradient of slope for Low LS-ignorance	0.113
t-value of slope for Low LS-ignorance	2.527
The p-value of slope for Low LS-ignorance	0.012
The gradient of slope for High LS-ignorance	0.068
t-value of slope for High LS-ignorance	0.621
The p-value of slope for High LS-ignorance	0.535

Source: Authors' Data

The Gradient of Slope for low and high values is automatically determined using the two-way interaction formula given in the graphic below by assuming the projected values of Y under various summaries (i.e., high and low values of X and high and low values of the X values of Z). The primary slope predicted relationship between attitude and intention at various degrees of library staff ignorance is depicted in Figure 6 above.

$$Y = b_0 + b_1X + b_2Z + b_3XZ + \epsilon$$

Because all three factors were examined simultaneously, the report cannot definitively conclude that library staff ignorance influenced the strength or weakness of the interaction between attitude and intention. However, Figure 7 below helps clarify the investigation of the moderating effect of library staff ignorance on librarians' attitudes toward the intention to share knowledge.

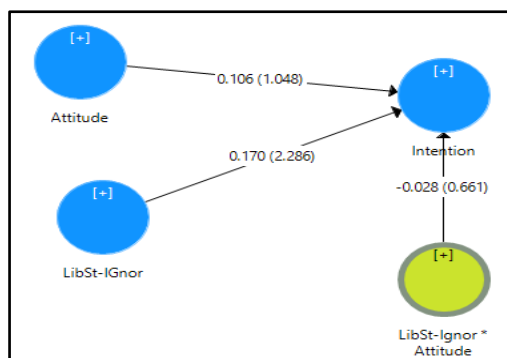


Figure 7. Moderation analysis for library staff ignorance

Results and Discussion

The role of knowledge-sharing practices among library experts in Malaysian academic libraries is complex and multifaceted. A study by Tahleho (2022) revealed that although staff recognized the importance of knowledge sharing, it often happened in an ad hoc manner with limited use of technology-based and human-based mechanisms. This suggests a potential gap in the knowledge-sharing process. Cheng (2009) investigated the factors influencing knowledge sharing and identified incentive systems and personal expectations as key drivers. In the context of academic libraries, these factors may significantly impact the knowledge-sharing practices of library experts. Maponya (2004) emphasized the importance of knowledge management in academic libraries and suggested that effective knowledge-sharing practices could enhance the services provided by these institutions. These findings underscore the need for further research to fully understand the mediating and moderating role of knowledge-sharing practices among library experts in Malaysian academic libraries.

Implications and Limitations

Implications

Understanding the mediating role of librarians' knowledge-sharing practices can lead to developing interventions and strategies to enhance the knowledge-sharing culture within academic libraries in Malaysia. This can foster collaboration and innovation among librarians and ultimately benefit library users. On the other hand, by identifying the factors that moderate or mediate knowledge-sharing practices among librarians, academic libraries can tailor their training programs and organizational policies to promote effective knowledge-sharing behaviors. This can potentially lead to improved service quality and user satisfaction. Insights gained from studying the mediating and moderating effects of knowledge-sharing practices can contribute to developing organizational learning processes within academic libraries. This can facilitate the creation, dissemination, and application of knowledge for continuous improvement.

Findings from this research can inform strategic decision-making processes within academic libraries, helping library administrators allocate resources effectively and prioritize initiatives that support a culture of knowledge sharing among librarians. Thus, understanding the factors influencing knowledge-sharing practices among librarians can inform the design of professional development programs tailored to enhance collaborative skills, information management techniques, and communication strategies among library staff.

Practical Implications

The study has many practical implications, and it can significantly influence the operations, policies, and culture within academic libraries. Libraries can design targeted training programs to enhance librarians' knowledge-sharing skills and practices. These programs can focus on communication strategies, collaborative tools, information management techniques, and cultural sensitivity to promote effective knowledge sharing within the library environment. In contrast, library administrators can create organizational policies that encourage knowledge exchange among librarians. These policies could include recognition programs, incentives for teamwork, and clear guidelines for sharing resources and expertise. Awareness of the factors that drive knowledge sharing can help library administrators make informed decisions about resource allocation. Providing access to pertinent training resources, establishing venues for informal knowledge exchange, and investing in technology infrastructure to promote communication and collaboration are all examples of what could fall under this category.

Libraries can incorporate measures of knowledge-sharing effectiveness into their performance evaluations to encourage collaboration and recognize the value of knowledge-sharing. A culture of knowledge sharing among librarians directly impacts the quality of services provided to library users. Librarians can improve their services to meet students' information needs more effectively, as well as faculty and researchers, by sharing best practices, innovative solutions, and subject expertise. Libraries can promote knowledge-sharing beyond their organization by organizing workshops, seminars, and online forums to encourage communication among librarians, faculty members, students, and researchers.

Furthermore, regular assessment and reflection on knowledge-sharing practices can help libraries identify areas for improvement and make iterative changes. This culture of continuous improvement can promote innovation, adaptability, and resilience in academic libraries. By implementing these practical suggestions for innovation and knowledge sharing, academic libraries can create a collaborative culture that benefits librarians and users.

Limitations

The study's findings may be limited to the specific context of selected Malaysian academic libraries and may not apply to libraries in other cultural or geographical settings. However, the sample selection process and size of the study introduced bias and limited the generalizability of the results. The study's methodology, such as the choice of measurement instruments or data collection techniques, influenced the validity and reliability of the findings. Moreover, the study may not capture the dynamic nature of knowledge-sharing practices within academic libraries, as these practices can evolve in response to changing organizational, technological, and environmental factors. The study's cross-sectional design may limit the ability to establish causality or determine the direction of relationships between variables related to knowledge-sharing practices among librarians. Longitudinal or experimental designs may be needed to address these limitations.

The research has addressed these implications and limitations, contributed to the advancement of knowledge in the field of library science, and informed practical interventions aimed at promoting effective knowledge-sharing practices within academic libraries in Malaysia and beyond.

Conclusion and Suggestions for Future Research

This paper contained several methods for data analysis. It provided data and conclusions and the results of the multivariate analysis utilising the PLS-SEM or Smart PLS-3 software. With Smart PLS, the analysis obtained all the required information on the study's structural model, thereby significantly increasing the study's accuracy. It sought to analyse the quality of the measuring model used in the study for the research model, including the hypotheses. However, this research paper has tested and validated the mediation and moderation effect. The results determined that the relationship between attitude, perceived behavioural control, and subjective norms toward library staff's knowledge-sharing practice are fully mediated by intention. The results also disclosed that at lower levels, library staff ignorance and attitude were determined to have a lower or negative impact on the intention to share knowledge. However, the researcher presented a complete summary of the total effects assessed for the entire model with all the mediators and the moderator, including the dependent/endogenous and independent/exogenous variables.

Using longitudinal research methods to learn more about the causal relationship between various variables and studying sharing practices over time can be very strategic. Combining quantitative surveys with qualitative interviews or observations can provide a more comprehensive understanding of knowledge-sharing practices.

However, researchers could expand their sample to include a broader range of academic libraries in Malaysia, encompassing different sizes, locations, and institutional contexts. Creating and verifying measurement instruments specifically tailored to evaluate knowledge-sharing practices in academic libraries can enhance the precision and dependability of data collection. Comparative research across various cultural contexts can shed light on how cultural factors impact librarians' knowledge-sharing practices and help distinguish between universal and context-specific factors.

Furthermore, implementing interventions to promote knowledge sharing within academic libraries and evaluate their effectiveness can provide practical insights for library administrators and policymakers. Involving key stakeholders, such as librarians, library administrators, and library users, in the research process can ensure that the study addresses relevant questions and generates actionable insights.

In conclusion, by addressing these limitations and implementing these suggestions, future research can advance our understanding of knowledge-sharing practices in academic libraries and contribute to developing evidence-based strategies for promoting collaboration and innovation within these institutions.

Acknowledgement

We would like to express our sincere gratitude to the academic library staff in the Klang Valley, especially those at the IIUM academic library, for their dedicated efforts in facilitating our research work and ensuring the researchers' active involvement.

References

- Adenan, H., Hashim, D. M., Jamaludin, A., & Sa'ari, H. (2013, February). The Influence of the Organizational Culture on Academic Entrepreneur's Knowledge Sharing Behaviour: Case Study at Private University Colleges in Malaysia. In *Proceedings of the International Conference on Innovation and Entrepreneurship: ICIE 2013* (p. 145).
- Adenan, H., Hashim, D. M., Jamaludin, A., & Sa'ari, H. (2013, May). Challenge in Sharing Tacit Knowledge: Academicians' Behaviour Towards Developing a Web Portal for Sharing Research Ideas. In *Proceedings of the European Conference on Information Management* (pp. 337-348).
- Ahmad, A. S., Omar, R., & Zulkifli, N. (2018). The impact of cultural values on knowledge sharing practices in Malaysian universities. *Malaysian Journal of Library & Information Science*, 23(3), 91-109.
- Ahmed, B., & Barry, M. (2023). A preliminary investigation into the knowledge-sharing practices of academic librarians in Malaysia." *Research Journal of Library and Information Science*, 7(1), 24–39. <https://doi.org/10.22259/2637-5915.0701003>.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.
- Ajzen, I. (2012). Values, attitudes, and behavior. In *Methods, theories, and empirical applications in the social sciences* (pp. 33-38). VS Verlag für Sozialwissenschaften. https://doi.org/10.1007/978-3-531-18898-0_5.
- Ajzen, I. (2020). The theory of planned behavior: Frequently asked questions. *Human Behavior and Emerging Technologies*, 2(4), 314-324. <https://doi.org/10.1002/hbe2.195>.
- Ajzen, I., & Fishbein, M. (2014). The Influence of Attitudes (nrRehavun. The Handbook of Attitudes, 173. Available online at: <https://books.google.com.my/books>.
- Ajzen, I., Fishbein, M., Lohmann, S., & Albarracín, D. (2018). The influence of attitudes on behavior. *The handbook of attitudes*, 197-255. 2nd Edited by: Albarracín, D., & Johnson, B.T. (Eds.). Volume 1: Basic Principles (2nd ed.). Routledge. <https://doi.org/10.4324/9781315178103>.
- Alavi, M., & Leidner, D. E. (2001). Review: Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS Quarterly*, 25(1), 107-136.
- Alhalhouli, Z. T., Hassan, Z., & 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. Available at: <http://citeseerx.ist.psu.edu/viewdoc/>.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, 51(6), 1173-1182. Available online at: <https://psycnet.apa.org/buy/1987-13085-001>.
- Barry, M. (2016). Factors affecting the use of mobile commerce (m-commerce) among young consumers: An empirical study in Malaysia. (*Master Dissertation: International Islamic University Malaysia*).
- Barry, M., & Jan, M. T. (2016). What drives social networking users to use mobile commerce. *American Journal of Social Sciences*, 1, B6-B16.
- Barry, M., & Jan, M. T. (2018). Factors influencing the use of m-commerce: An extended technology acceptance model perspective. *International Journal of Economics*,

- Management and Accounting*, 26(1), 157-183.
<https://doi.org/10.31436/ijema.v26i1.502>.
- Barry, M., Haque, A. A., & Jan, M. T. (2024a). Factors affecting the intention to use mobile commerce in Malaysia: An integration of TAM And IS success model. *International Journal of Academic Research in Business and Social Sciences*, 14(3), 726-753. <http://dx.doi.org/10.6007/IJARBSS/v14-i3/21037>.
- Barry, M., Haque, A. A., & Jan, M. T. (2024b). An analysis of the factors affecting university students' intention to use mobile commerce: An extended TPM. *International Journal of Academic Research in Economics and Management Sciences*, 13(2), 89-107. <http://dx.doi.org/10.6007/IJAREMS/v13-i2/21257>.
- Barry, M., Haque, A. A., & Jan, M. T. (2024c). Mobile commerce adoption in Malaysia: A conceptual framework. *Open Journal of Economics and Commerce*, 5(1), 4-12. <https://doi.org/10.22259/2638-549X.0501002>.
- Bautista, R. G., & Bayang, M. A. (2015). Social network, social trust, and shared-goals towards organizational-knowledge sharing. *American Journal of Educational Research*, 3(5), 662-667. DOI:10.12691/education-3-5-21. Available online at: <http://pubs.sciepub.com/education3/5/21>.
- Blau, P. M. (1964). Exchange and power in social life. Transaction Publishers.
- Cameron, R. R. (2010). Ajzen's theory of planned behavior applied to the use of social networking by college students (Unpublished thesis). Texas State University-San Marcos, San Marcos, Texas. Available online at: <https://digital.library.txstate.edu/handle/10877/3298>.
- Cheung, G. W., & Lau, R. S. (2008). Testing mediation and suppression effects of latent variables: Bootstrapping with structural equation models. *Organizational research methods*, 11(2), 296-325. <https://doi.org/10.1177/1094428107300343>.
- Chiu, C. M., Hsu, M. H., & Wang, E. T. G. (2006). Understanding knowledge sharing in virtual communities: An integration of social capital and social cognitive theories. *Decision Support Systems*, 42(3), 1872-1888.
- Chowdhury, G., & Chowdhury, S. (2020). Introduction to digital libraries. Walter de Gruyter GmbH & Co KG.
- Dawson, J. F. (2014). Moderation in management research: What, why, when, and how. *Journal of business and psychology*, 29(1), 1-19. <https://doi.org/10.1007/s10869-013-9308-7>.
- Fahimeh, B., & Kermani, Z. J. (2011). Knowledge sharing behaviour influences: a case of Library and Information Science faculties in Iran. *Malaysian Journal of Library & Information Science*, 16(1), 1-14. Available at: <http://jice.um.edu.my/index.php/MJLIS/article/view/6670>. Retrieved on 14th April 2024.
- Foo, S. F., & Norsiah, A. (2014). The relationship between organizational culture and knowledge sharing in Malaysian universities: The mediating role of affective commitment. *Procedia-Social and Behavioral Sciences*, 129, 408-414.
- Fung, A. (2015). Putting the public back into governance: The challenges of citizen participation and its future. *Public administration review*, 75(4), 513-522. First published: 25 February 2015. <https://doi.org/10.1111/puar.12361>.
- Garson, G. David. "Testing statistical assumptions." (2012).

- Guenzi, P., Johnson, M. D., & Castaldo, S. (2009). A comprehensive model of customer trust in two retail stores. *Journal of Service Management*. Vol. 20 No. 3, pp. 290-316. <https://doi.org/10.1108/09564230910964408>.
- Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, 26(2), 106-121. <https://doi.org/10.1108/EBR-10-2013-0128>.
- Hancock, G. R., Stapleton, L. M., & Mueller, R. (2018). Routledge: London.
- Hejase, H. J., Haddad, Z., Hamdar, B., Al Ali, R., Hejase, A. J., & Beyrouti, N. (2014). Knowledge sharing: Assessment of Factors Affecting Employee Motivation and Behavior in Lebanese Organisations. *Journal of Scientific Research & Reports (JSRR)*, 3, 1549-1593. set forth at: <http://libraries.lau.edu.lb/research/laur/terms-of-use/articles.php>.
- Henseler, J., Ringle, C.M. and Sinkovics, R.R. (2009), "The use of partial least squares path modeling in international marketing", Sinkovics, R.R. and Ghauri, P.N. (Ed.) *New Challenges to International Marketing (Advances in International Marketing, Vol. 20)*, Emerald Group Publishing Limited, Bingley, Pp. 277-319. [https://doi.org/10.1108/S1474-7979\(2009\)0000020014](https://doi.org/10.1108/S1474-7979(2009)0000020014).
- Hongdiyanto, C., & Liemena, K. (2021). The Mediation Effect of Customer Satisfaction in Relationship between Product Quality and Service Quality towards Customer Loyalty in Fuzee Sushi. *FIRM Journal of Management Studies*, 6(2), 172-182. DOI: <http://dx.doi.org/10.33021/firm.v6i2.1557>.
- Ismail, Z., & Zainab, A. N. (2015). Current Development in Malaysian Academic Libraries. In *2nd International Conference on Information Management and Evaluation (ICIME 2011)* (p. 150). Academic Conferences International Limited.
- Israilidis, J., Siachou, E., Cooke, L., & Lock, R. (2015). Individual variables with an impact on knowledge sharing: the critical role of employees' ignorance. *Journal of Knowledge Management*, 19(6), 1109-1123. <https://doi.org/10.1108/JKM-04-2015-0153>.
- Kante, M., Chepken, C., & Oboko, R. (2018). Partial least square structural equation modelling' use in information systems: an updated guideline in exploratory settings. *Kabarak Journal of Research & Innovation* 6.1 (2018): 49-67. <http://creativecommons.org/licenses/by-nc-nd/3.0/us/>.
- Kiriakidis, S. (2015). Theory of planned behaviour: The intention-behaviour relationship and the perceived behavioural control (PBC) relationship with intention and behaviour. *International Journal of Strategic Innovative Marketing*, 3(2), 40-51.
- Klarner, P., Sarstedt, M., Hoeck, M., & Ringle, C. M. (2013). Disentangling the effects of team competences, team adaptability, and client communication on the performance of management consulting teams. *Long Range Planning*, 46(3), 258-286. <https://doi.org/10.1016/j.lrp.2013.03.001>.
- Knabe, A. P. (2012). Applying Ajzen's theory of planned behavior to a study of online course adoption in public relations education. Marquette University ProQuest Dissertations Publishing, 2012. 3490036. Available at: <https://www.proquest.com/openview/2305d9565f56059d846ed6d8063e3b23/1?pq-origsite=gscholar&cbl=18750>. Retrieved on 14th April 2024.
- Latan, H., Noonan, R., & Matthews, L. (2017). Partial least squares path modeling. Partial least squares path modeling: basic concepts, methodological issues, and applications. Publisher: Springer International Publishing ISBN: 978-3-319-64068-6. DOI: <https://doi.org/10.1007/978-3-319-64069-3>.

- Leavy, P. (Ed.). (2017). Handbook of arts-based research. Guilford Publications. Available at: [https://books.google.com.sl/books?hl=Leavy+\(2017\),=false](https://books.google.com.sl/books?hl=Leavy+(2017),=false).
- Lee, C. K., & Al-Hawamdeh, S. (2002). Factors impacting knowledge sharing. *Journal of Information & Knowledge Management*, 1(01), 49-56. <https://doi.org/10.1142/S0219649202000169>.
- Lin, H. F. (2007). Effects of extrinsic and intrinsic motivation on employee knowledge sharing intentions. *Journal of Information Science*, 33(2), 135-149.
- Lin, H. F., & Lee, G. G. (2004). Perceptions of senior managers toward knowledge-sharing behaviour. *Management Decision*, 42(1), 108-125. <https://doi.org/10.1108/00251740410510181>.
- Mackinnon, D. P., & Dwyer, J. H. (1993). Estimating Mediated Effects in Prevention Studies. *Evaluation Review*, 17(2), 144-158. <https://doi.org/10.1177/0193841X9301700202>.
- MacKinnon, D. P., & Fairchild, A. J. (2009). Current directions in mediation analysis. *Current directions in psychological science*, 18(1), 16-20. <https://doi.org/10.1111/j.1467-8721.2009.01598.x>
- MacKinnon, D. P., & Luecken, L. J. (2008). How and for whom? Mediation and moderation in health psychology. *Health psychology*, 27(2S), S99. [https://doi.org/10.1037/0278-6133.27.2\(Suppl.\).S99](https://doi.org/10.1037/0278-6133.27.2(Suppl.).S99).
- Morden, T. (2017). Principles of management. Innovative Business Textbooks, 2nd ed., Published 2016 by Routledge 2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN 711 Third Avenue, New York, NY 10017, USA, Routledge. www.books.google.com.
- Mueller, R. O., & Hancock, G. R. (2018). Structural equation modeling. In *The reviewer's guide to quantitative methods in the social sciences* (pp. 445-456). 2nd Edition, Routledge. eBook ISBN: 9781315755649. <https://www.taylorfrancis.com/chapters/edit/10.4324/>.
- Patterson, R. R. (2001). Using the theory of planned behavior as a framework for the evaluation of a professional development workshop. *Microbiology Education*, 2(1), 34-41. DOI: <https://doi.org/10.1128/me.2.1.34-41.2001>.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior research methods*, 40(3), 879-891. <https://doi.org/10.3758/BRM.40.3.879>.
- Rafique, G. M., Khalid, F., & Idrees, H. (2020). Impact of Knowledge Sharing on Job Satisfaction of University Librarians in Pakistan. *Library Philosophy and Practice (e-journal)*. 4532. <https://digitalcommons.unl.edu/libphilprac/4532>.
- Sihombing, S. O. (2011). Understanding knowledge sharing behavior: An examination of the extended model of theory of planned behavior. *The Winners*, 12(1), 24-39. Doi: <https://doi.org/10.21512/tw.v12i1.681>.