

Research Article

Factors Determining Knowledge Sharing Behaviour among Employees by Mediating Role of Knowledge Sharing Intention: Evidence from Bank of Abyssinia

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Abstract

This research investigated the factors determining knowledge sharing behavior among employees at the Bank of Abyssinia, specifically examining the mediating role of knowledge sharing intention. A mixed-methods approach, combining primary and secondary data, was employed to address the research objectives and questions. Quantitative research methods were utilized to translate abstract concepts into measurable variables, enabling the empirical testing of hypotheses and the examination of relationships between key variables undertaken through appropriate statistical analyses. An explanatory research design was employed to establish the direction and significance of relationships between the variables under investigation. Hypotheses were formulated to explore the relationships between variables and assess the mediating effect of intention. Data was collected through a field survey conducted among Bank of Abyssinia employees. Structural equation modeling (SEM) was used to analyze the data and test hypotheses, including regression and confirmatory factor analyses. Key findings revealed that employee attitudes and perceived behavioral control significantly impact knowledge sharing activities. The study concluded that knowledge sharing intention significantly and positively influences knowledge sharing behavior. Furthermore, factors such as knowledge sharing attitude, subjective norm, and perceived behavioral control directly influence employee knowledge sharing behavior within the bank. Therefore, the study recommends that banks cultivate an environment that fosters effective communication and idea exchange among employees to promote knowledge sharing. By facilitating knowledge transfer, banks can cultivate a robust knowledge base, thereby enhancing innovative activities.

Keywords: Knowledge sharing, Bank of Abyssinia, Employees, Individual factors, Organizational factors

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1. Introduction

In a globalized economy, knowledge has emerged as a paramount competitive advantage for companies (Davenport & Prusak, 2000). Extensive research has explored knowledge sharing within organizations, examining it from diverse perspectives, including individual (Ipe, 2003) and organizational levels (Argote & Ingram, 2000; Giroud, 2000). Studies have also delved into knowledge sharing within departments or groups (Hansen & Haas, 2001; Kane, Argote & Levine, 2004; Koskinen, Pihlanto & Vanharanta, 2003). Research from an organizational perspective frequently focuses on 'knowledge transfer' (Huang, 2009) or 'technology transfer' (Gottschalk, 2005). Technology transfer is basically the transfer of technology and know-how from one firm to another or any possible benefit through their long-term relationship and the exchange of information (Caimo and Lomi, 2015).

Global studies on know-how transfer are mainly interested on how much knowledge is being transferred from one organization to the other, and what are the factors that contribute to this process. Similarly, studies from the group perspective are looking at factors that ease the transfer of knowledge from one group to another. Finally, studies from the individual perspective, which is the main interest of this study, simply relate to the behaviours of individuals. Specifically, these studies examined the factors that make individuals share or hoard knowledge, and seek to identify what motivates individuals to share knowledge Solihin & Ratmono (2013).

The present-day knowledge is still considered as power and the understanding has changed considerably, particularly from the perspective of an organization, knowledge must be shared (Mothe et al., 2000). Both types of knowledge can be produced as a result of interactions in the environment or innovations by the individuals themselves. It has been shown that the organizations that share knowledge among its management and employees could grow stronger and becomes more competitive (Jakarta and Ratulangi, 2008). Besides, knowledge sharing practice can be influenced by several different factors. Among the many factors, individual behaviours of employees, organizational cultures, the existence of adequate Information Technology infrastructures and employee communication are the major ones that have the power to influence knowledge sharing practices in the banking sectors (Seyyed et al., 2012).

The factors overdue knowledge-sharing behaviour have been extensively investigated with different designs and contexts by scientists worldwide, such as in the United States, United Kingdom, Europe, Africa, and Asia (Caniels et al., 2017; Ding et al., 2017; Fullwood & Rowley, 2017; Mafabi et al., 2017; Mahyarni et al., 2012; Wang & Noe, 2010). Scholars have predicted that this direction of studies only continues to grow in popularity over the next two decades (Tea & Sun, 2012; Ding et al., 2017; Fullwood &

Rowley, 2017; Mafabi et al., 2017). This prediction proves the increasing attention of scholars on knowledge-sharing research in the world today. Any practitioners and academics assume that since knowledge sharing is crucial for achieving the collective outcome, people will share knowledge as part of their work requirements. However, many companies and institutions have experienced that knowledge sharing does not always happen in practice, regardless of whether a person-to person or a person-to-document strategy is followed (Edwards, J.S. 2017).

Several studies have successfully explained the prediction of intention and knowledge-sharing behaviour using theory of planned behaviour (TPB) (Chatzoglou & Vraimaki, 2009; Chennamaneni et al., 2012; Jolaei et al., 2014; Lin & Lee, 2004; Mafabi et al., 2017). The TPB model was introduced by Ajzen (1991). According to this theory, personal attitude, subjective norm, and perceived behavioural control are used to predict the behaviour of individuals to participate in a certain activity (Hsu et al., 2016). However, some other studies have failed to predict knowledge-sharing behaviour using TPB. Mahyarni et al. (2012) found that perceived behavioural controls have no effect on knowledge-sharing intention, whereas Mafabi et al. (2017) and Al Qeisi and Al Zagheer (2015) indicated that they have no direct effect on knowledge-sharing behaviour. Al Qeisi and Al Zagheer (2015) reported that subjective norms do not influence knowledge sharing intention, whereas according to Ajzen (1991), behaviour control can directly predict certain behaviours, such as knowledge-sharing Mafabi et al. (2017).

Now a day, a number of private and government owned banking sectors are functional in all over the country. However, unlike the enormous expansion of banking industry in the country, the nature of knowledge sharing practices in the banking diligence are not given due attention by domestic researchers. So that this research work was initiated to investigate the factors affecting knowledge sharing among employees of Ethiopian banking industry with the mediating role of knowledge sharing intention. Specifically, this research focused on privately owned banking sector in Ethiopia i.e. Bank of Abyssinia. Knowledge sharing is critical to both the creation and application of organizational knowledge (Hendriks, 2004; Huysman & De Wit, 2002), which are essential processes in organizational innovation and knowledge management. At the same time, organizations worldwide have been trying to undertake initiatives in introducing effective knowledge management by adding Knowledge Sharing practices in their daily work processes to achieve organizational performance Liew, A. (2013).

Keeping this in view, this study aims to examine the factors affecting Knowledge Sharing practice in banking sector and there is the tendency of relying on few experts of the bank that don't share their expertise. Therefore, the study has contributed to managerial practice by showing the benefits of knowledge sharing and providing a basic framework to shape the knowledge sharing practice in banking sector.

Based on the potential factors identified from previous studies which were deemed /believed important in the specific context of the study, researcher provides the following specific research questions

1. What is the relationship between attitude towards knowledge sharing and among knowledge sharing intention?
2. What is the relationship between subject norm and knowledge sharing intention?
3. What is the relationship between perceived behavioural control and among knowledge sharing intention?
4. What is the relationship between high level of intention and among knowledge sharing behaviour?

The general objective of the study is to assess the factors determining knowledge sharing behaviour among employees of Ethiopian banking industry with the mediating role of knowledge sharing intention evidence from bank of Abyssinia. The specific objectives are:

1. To analyse the relationship between attitude towards knowledge sharing and knowledge sharing intention?
2. To assess the relationship between subject norm and knowledge sharing intention?
3. To determine the relationship between perceived behavioural control and knowledge sharing intention?
4. To examine the relationship between high level of intention and knowledge sharing behaviour?

2. Literature Review and Hypothesis Development

2.1. Empirical Review

Industries are nowadays living in the world of expanding knowledge with more and more people being described as knowledge workers, and knowledge being widely accepted as the only true business asset. Global organizations have started using knowledge management technologies to amplify their competitiveness in ways that were impossible a few years ago Antezana Erick (2009). For a successful start to knowledge management, an organization should engage in a clear understanding of how, and where, knowledge resides, and is developed, in the industry.

Krstic (2007) argued that knowledge building is dependent upon information technology. In order to build knowledge sharing capabilities, the organization must develop a comprehensive infrastructure that facilitates the various types of knowledge and communication.

Gan (2006) articulated that the structure of the industry, impacts the ways in which industries conduct their operations and in doing so, affects how knowledge is created and shared amongst employees. The hierarchical structure of an organization affects the people with whom individuals frequently interact, and to or from whom they are consequently likely to transfer knowledge. Wei (2006) articulated that people are the

heart of creating organizational knowledge as it is people who create and shared knowledge. People are said to be true agents in the industry where all tangible and intangible assets are the result of human action and depend ultimately on people for their continued existence (Antezana Erick 2009).

Previous research has identified organizational culture, resistance to change, organizational structure, and top management support as critical factors influencing the successful implementation of knowledge management systems (KMS). This study corroborates these findings, although the relative importance and impact of each factor may vary across different contexts. Notably, this research was conducted within the specific context of a developing country, Ethiopia, offering valuable insights into the unique challenges and opportunities faced by organizations in such environments. While many studies have focused on assessing the various factors that influence KMS implementation, this research specifically investigates the critical factors that facilitate or hinder the successful deployment of KMS within an organization, rather than examining knowledge management practices themselves (Serrat, 2008).

Knowledge, whether explicit (documented) or tacit (embedded in individual experience), can be transmitted through various means, including written research papers, lectures, dialogues, and active participation in community practices (Khoualdi & Saleh, 2015). Effective sharing of tacit knowledge necessitates significant engagement from both the knowledge holder and the recipient (Law and Chan, 2016). The primary objectives of knowledge sharing within an organization are to facilitate the transfer of knowledge between individuals, ensure the retention of valuable knowledge assets, and accelerate the adoption of new knowledge within the organization (R. Du. et al., 2007). Research has demonstrated that investments in collaborative research and development initiatives, where teams work together, yield more significant performance improvements. Moreover, employees' intention to share tacit knowledge and their actual sharing behavior have a direct positive influence on productivity. Furthermore, exposure to the knowledge, expertise, and experiences of others enhances employee innovation (Torabi & El-Den, 2017).

Improving job performance, enhancing employee satisfaction, and providing appropriate compensation are critical factors in fostering knowledge sharing within organizations (Vincent, 2017). Notably, knowledge sharing significantly contributes to improved work performance by stimulating creativity, recognized as a key driver of organizational success (Lee, 2018). In contrast, Ngoc-Tan and Gregar (2018) found an inverse relationship between knowledge dissemination and administrative innovation within an academic context. Knowledge sharing is a cornerstone of effective Knowledge Management (KM) and is widely acknowledged by organizations as crucial for developing core competencies and achieving a sustainable competitive advantage (Kim and Lee, 2004). Definitions of knowledge sharing vary across different scholars. Mathi (2004) defines knowledge sharing as a set of practices that involve the exchange of information or assistance with others. Antezana Erick (2009) conceptualizes knowledge sharing as knowledge flows, comprising five key elements: the value of the source knowledge, the source's willingness to share, the

richness of the communication channel, the recipient's willingness to acquire knowledge, and the recipient's absorptive capacity. In 2001, knowledge sharing was closely linked to knowledge transfer, defined as the process of disseminating knowledge throughout the organization. Numerous studies have demonstrated the critical importance of knowledge sharing, as it empowers organizations to enhance innovation performance and minimize redundant learning efforts (Pual, 2013).

2.2. Hypotheses Formulation

2.2.1. Attitudes and Behavioral Intentions Regarding Knowledge Sharing

Prior research has established attitude as a significant predictor of an individual's intention to engage in a specific behavior, including knowledge sharing (Chatzoglou & Vraimaki, 2009; Lin & Lee, 2004). Numerous studies have demonstrated a positive correlation between attitude and knowledge-sharing intention (Chatzoglou & Vraimaki, 2009; Chennamaneni et al., 2012; Fulwood & Rowley, 2017; Jolae et al., 2014; Lin & Lee, 2004; Luturmas & Indarti, 2016; Teh & Sun, 2011; Mafabi et al., 2017; Rahab & Wahyuni, 2013; Ryu et al., 2003).

Attitude can be defined as an evaluative response that arises when an individual encounters a stimulus that necessitates a reaction (Azwar, 2013). This evaluative response stems from an internal assessment process, resulting in a positive or negative evaluation of the stimulus (Chennamaneni et al., 2012). In this study, attitude toward knowledge sharing refers to an individual's positive or negative evaluation of knowledge-sharing behaviors (Al Qeisi & Al Zagheer, 2015; Chatzoglou & Vraimaki, 2009; Lin & Lee, 2004). A positive employee attitude towards knowledge sharing is strongly associated with an increased intention to engage in knowledge-sharing activities. Conversely, negative attitudes towards knowledge sharing can lead to employee reluctance to share knowledge (Chatzoglou & Vraimaki, 2009; Chennamaneni et al., 2012; Jolae et al., 2014; Lin & Lee, 2004; Luturmas & Indarti, 2016; Teh & Sun, 2011; Tsai et al., 2012; Mafabi et al., 2017; Rahab & Wahyuni, 2013; Ryu et al., 2003). Based on this analysis, this study formulated and tested the following hypothesis:

2.2.2 Perceived Behavioral Control, Intention, and Their Influence on Knowledge-Sharing Behaviour

Perceived behavioral control, as defined by Ajzen (2005), encompasses an individual's beliefs regarding the presence or absence of factors that facilitate or impede the performance of a specific behavior. Essentially, it reflects an individual's perceived ability to predict and control their behavior (Mafabi et al., 2017). This perceived ability encompasses an individual's knowledge about the behavior, as well as their skills, abilities, emotions, and any internal or external factors that may influence their capacity to perform the behavior (Lin & Lee, 2004). Within the framework of the Theory of Planned Behavior (TPB), Ajzen (1991) proposed that

perceived behavioral control, in addition to intention, can directly predict actual behavior, including knowledge-sharing behavior. Empirical evidence from numerous studies supports this assertion, demonstrating a positive relationship between perceived behavioral control and knowledge-sharing behavior (Chatzoglou & Vraimaki, 2009; Chennamaneni et al., 2012; Lee & Hong, 2014). Specifically, an employee's perception of the ease with which they can engage in knowledge-sharing activities tends to positively influence their actual knowledge-sharing behavior. Conversely, perceived negative experiences, such as difficulties in sharing knowledge, are likely to deter employees from engaging in knowledge-sharing activities. Based on these findings, this study has been investigated the following hypothesis:

2.2.3. Organizational Culture Factors

A prior research has extensively explored organizational operational factors that contribute to successful knowledge sharing and business process integration (Abualoush et al., 2018). The integration of knowledge sharing and business processes is a complex undertaking, influenced by various factors that can significantly impact the successful execution of business processes in a sequential manner. The presence of these factors can positively influence the outcomes of business process and knowledge sharing integration initiatives. Conversely, the absence of these critical components can create significant challenges during or after the integration process. This research aims to identify specific factors that are crucial for the effective integration of business processes and knowledge sharing, addressing the concerns raised by Chan and Chau (2005) regarding potential dissatisfaction with the integration outcomes.

2.2.4. Individual Influences on Knowledge Sharing

Within the framework of knowledge sharing, individuals function as both creators and recipients of knowledge. Knowledge creation occurs through the active communication and dissemination of ideas within social settings. As knowledge recipients, individuals proactively seek and acquire knowledge before it is formally documented or shared within organizational databases (Takeuchi, 2006). This dynamic highlights the crucial role of individuals in initiating and driving knowledge sharing processes. The creation and sharing of knowledge are contingent upon the actions of individuals who possess the knowledge and must actively choose to share it or withhold it. For instance, if an employee encounters a work-related challenge and possesses the solution, their decision to share this knowledge with colleagues is entirely dependent on their personal motivation and intentions. Individual characteristics and attitudes significantly influence an individual's willingness to share knowledge with peers. This example underscores the pivotal role of human interaction in knowledge creation and dissemination. Human knowledge is generated and amplified through social interactions, collaborative efforts, and innovative practices among individuals (Takeuchi, 2006).

2.2.5. Social Relations and Knowledge Sharing Activities

Social exchange theory, a prominent framework for understanding knowledge sharing, posits that social relationships are fundamentally rooted in the interdependence of individuals. As Emerson (1976) articulated, the actions of one individual can directly influence the rewards or penalties experienced by another, and vice versa. This dynamic, characterized by the pursuit of rewards and the avoidance of punishments, drives human interaction based on the principle of reciprocity. Building upon this foundation, Harvey et al. (2006) emphasize the role of interpersonal trust and commitment in shaping social exchange relationships. These factors foster shared reliance and influence the depth of interaction between individuals. Ultimately, the nature of social relationships within a given context significantly impacts the opportunities for knowledge sharing among employees.

2.2.6. Technological Factors and Knowledge Sharing Activities

The role of information technology (IT) in facilitating knowledge sharing has been a focal point for numerous studies in the field of knowledge management (Kim & Lee, 2006). Research findings consistently support the positive impact of IT infrastructure on knowledge sharing processes (Syed-Ikhsan & Rowland, 2004; Kim & Lee, 2006). Yang and Chen (2007) emphasize the critical role of technical knowledge and skills within organizations, highlighting their significance in the modern knowledge-driven landscape. While organizational context can influence knowledge management outcomes, studies have shown that the overall knowledge capabilities of organizations do not significantly differ between those implementing knowledge management projects and those that do not. However, the mean scores in these studies often indicate variations in organizational capabilities across different technical domains. This suggests that technological factors play a crucial role in enabling effective knowledge sharing activities.

Depending on the above reviews, this study was tried to examine the following hypotheses:

- Ha1: Individuals with a strong intention to share knowledge are more likely to exhibit higher levels of actual knowledge sharing behavior.
- Ha2: High levels of perceived behavioral control over knowledge sharing positively influence the extent of actual knowledge sharing behavior.
- Ha3: A favorable attitude towards knowledge sharing significantly increases an individual's intention to share knowledge.
- Ha4: A strong subjective norm that supports knowledge sharing positively influences an individual's intention to share knowledge.

- Ha5: High levels of perceived behavioral control over knowledge sharing positively influence an individual's intention to share knowledge.
- Ha6: Higher levels of education are positively associated with more favorable attitudes towards knowledge sharing among knowledge owners.
- Ha7: Perceived reciprocal benefits from knowledge sharing significantly enhance a knowledge employee's attitude towards knowledge sharing.
- Ha8: Perceived loss of knowledge power negatively influences a knowledge employee's attitude towards knowledge sharing.
- Ha9: Perceived improvement in reputation resulting from knowledge sharing significantly influences a knowledge employee's attitude towards knowledge sharing.
- Ha10: Perceived ease of use of knowledge sharing systems significantly enhances stakeholders' attitudes towards knowledge sharing.
- Ha11: Strong leadership support for knowledge sharing significantly increases the subjective norm among employees to share their knowledge.
- Ha12: Organizational culture significantly influences knowledge sharing behavior among employees.
- Ha13: High service availability of knowledge sharing systems or platforms significantly enhances a knowledge employee's Perceived Behavioral Control over knowledge sharing.
- Ha14: Increased awareness of the importance and benefits of knowledge sharing significantly enhances a knowledge employee's Perceived Behavioral Control over knowledge sharing.

3. Material and methods

3.1. Bank of Abyssinia: A Foundation of Growth

Established in 1996, Bank of Abyssinia (BOA) has emerged as Ethiopia's largest privately held bank, with ambitious aspirations to become the leading commercial bank in East Africa by 2030. This ambitious goal is driven by a commitment to expanding its customer base and fostering financial inclusion within the country and beyond. Born from a vision to provide comprehensive commercial banking services during a period of nascent financial development, BOA was founded on principles of determination and innovation. The bank's name, "Abyssinia," symbolizes bravery and character – qualities that underpin its identity. The logo, "Adey Abeba," embodying the promise of a new dawn, reflects BOA's commitment to bringing hope and optimism to its customers, enabling sustained success through dedicated support.

BOA's diverse ownership structure, encompassing individuals with expertise in various fields including business, entertainment, and education, reflects its dynamic nature and collaborative spirit. This diverse

background not only signifies the bank's determination to succeed in the competitive banking sector but also highlights its capacity for collective achievement.

As a core value, BOA actively promotes corporate social responsibility, recognizing that the well-being of the community directly benefits all stakeholders. The bank actively participates in national development projects and social initiatives, including the construction of the Ethiopian Grand Renaissance Dam, the establishment of the Ethiopian Cardiac Centre, and the support of organizations like the Ethiopian Rotary Club and the Ethiopian Women Traders' Associations.

With a strong network of 855 branches across the country, BOA serves over 10.2 million customers. The bank's sophisticated financial services are underpinned by the T-24 core banking system, complemented by a network of 1277 ATMs, 18 virtual banking centers, and over 1232 Point-of-Sale (POS) terminals, ensuring convenient and accessible banking for customers. This comprehensive infrastructure has enabled BOA to significantly increase its capital from ETB 50 million to ETB 18.59 billion, with total assets reaching ETB 188.55 billion.

3.2. Research Design, Data Sources, Target Population, Sample, and Sampling Technique

This study employed an explanatory quantitative research design. This approach was chosen to analyze quantitative data and investigate the existence and significance of relationships between the variables under consideration. Advanced statistical techniques, such as correlation and regression analysis, were utilized to establish the presence and strength of relationships between the dependent and independent variables.

Data for this study was sourced from both primary and secondary sources. Primary data was collected through various methods, including questionnaires, interviews, field observations, and focused investigations. Secondary data was gathered by reviewing relevant literature, such as reports, archival documents, books, journals, bulletins, magazines, and online resources.

The target population for this study comprised all employees of Bank of Abyssinia, encompassing staff from 10 Districts and the Head Office. According to the bank's 2022/2023 annual report, the total employee count at the end of the fiscal year was 8,146. This population included senior-level managers, middle-level managers, operational-level managers, and general staff members across various departments, including Human Resources, Operations, Accounting and Finance, Information Technology, Public Relations and Marketing, and Sales.

The sample size was determined using the Cooper and Schindler formula, where 'N' represents the population size, 'n' represents the sample size, and 'e' represents the level of error at 95% confidence and 5%

significance. Based on this formula, a sample size of 381 employees was selected from the target population of 8,146 employees.

Formula:

$$n = \frac{N}{(1 + N(e)^2)}$$

$$= \frac{8,146}{(1 + 8,146(0.05)^2)} = 381$$

Therefore, the study has considered a sample size of 381 respondents.

The target population for this study comprised all employees of Bank of Abyssinia across 10 Districts and the Head Office. To select a sample from this population, a convenience sampling method was employed. As noted by Anol (2012), convenience sampling involves selecting participants who are readily accessible or easily available.

To ensure proportionate representation from each District, proportional allocation was utilized. This approach ensured that the sample size from each District was proportional to its size within the overall population. The following formula was used to determine the sample size for each selected District:

$$n_k = \left(\frac{n}{N}\right) N_k$$

Where: n_k = the sample size for k^{th} District

N_k = the population size of k^{th} District

N = the total population size,

n = the total sample size

Table 1, shows number of respondents allocated to each of the ten Districts and head office selected.

Table 1: Sampling frame

No	District Name	Population	% in Sample Size	Sample Size
1	Head Office	456	5.60	21
2	East Addis District	1,197	14.69	56
3	West Addis District	1,079	13.25	50
4	Central Addis District	930	11.42	43
5	Adama District	580	7.12	27
6	Hawassa District	720	8.84	34
7	Dire Dawa District	550	6.75	26
8	Dessie District	570	7.00	27
9	Jimma District	514	6.31	24

10	Bahir Dar District	840	10.31	39
11	Mekele District	710	8.72	33
	Total	8,146	100	381

Source: Bank of Abyssinia Oracle database, June 2023

3.3 Data Gathering Tools

The primary data collection instrument for this study was a questionnaire administered via mail survey through the Bank of Abyssinia's Outlook platform. As noted by Leary (2004), questionnaires offer several advantages, including cost-effectiveness, ease of administration to large groups, and the potential for consistent and reliable results. The questionnaire included two main sections. The first section gathered demographic information from respondents. The second section consisted primarily of close-ended questions, where respondents indicated their level of agreement using a five-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree." This Likert scale, developed by Rensis Likert, is widely used in social science research to measure ordinal data (Bhattacharjee, 2012).

To implement the mail survey, the Total Design Method for Survey Research (Dillman, 1978) was employed. A single-informant method was utilized for data collection. While acknowledging the limitations of single-informant data (discussed in Chapter 3), this approach was deemed cost-effective and aligns with common practices within the banking sector (e.g., Gatignon & Xuereb, 1997; Moorman, 1995). Ten districts and the head office were contacted via phone calls to secure their participation and identify suitable informants. These key informants were responsible for disseminating the questionnaire through the Outlook platform. The questionnaire guided respondents to identify the most significant factors influencing knowledge-sharing behavior within their respective departments.

It is important to note that relying on individual perceptions may not fully capture the collective properties of organizational climate. Additionally, respondents may be hesitant to share opinions regarding negative aspects of knowledge-sharing behavior. To mitigate these potential issues, several measures were taken during the survey instrument development phase. All variables related to knowledge-sharing behavior were grouped together, and their corresponding questions were carefully phrased to reflect the factors influencing knowledge-sharing behavior among employees. Moreover, the research instrument emphasized the confidentiality of respondent answers and clearly stated that the data would be used solely for research purposes.

3.8. Methods of Data Analysis

Data collected from respondents via mailed questionnaires were entered into and analyzed using Statistical Package for Social Science (SPSS) version 26, the latest version available. To investigate the relationships between variables related to knowledge-sharing attitude, subjective norms, and perceived behavioral control,

statistical hypothesis testing techniques, specifically regression analysis and structural equation modeling (SEM), were employed. SEM has emerged as a prominent method in contemporary research, offering advancements over previous methodologies with inherent limitations and potentially inaccurate assumptions. As noted by Afthanorhan et al. (2014), SEM integrates regression analysis and exploratory factor analysis, enabling researchers to conduct analyses based on more realistic assumptions.

Following confirmatory analysis, a structural model was developed. This model visually represented all latent variables and the relationships between independent and dependent variables, incorporating the mediating relationships between variables. The model was based on the total effect, which encompasses both direct and indirect effects. Prior to model development, careful consideration was given to model specification, identification, and the analysis of mediation effects.

4. Result and Discussion

4.1. Exploratory Factor Analysis

Findings from Principal Component Analysis of Knowledge-Sharing Behavior

Table 2 Correlation Matrix

Correlation Matrix ^a										
		EDU	PRB	PLKP	PIR	PEU	LEAD	OC	SA	PA
Correlation	EDU	1.000								
	PRB	.841	1.000							
	PLKP	.796	.857	1.000						
	PIR	.581	.611	.601	1.000					
	PEU	.622	.556	.612	.725	1.000				
	LEAD	.566	.562	.525	.745	.719	1.000			
	OC	.435	.385	.357	.421	.524	.559	1.000		
	SA	.433	.368	.343	.383	.378	.462	.508	1.000	
	PA	.295	.331	.319	.328	.308	.314	.422	.464	1.000

a. Determinant = .002

Source: Survey, 2023

To investigate the relationships between knowledge-sharing behavior and nine independent variables, including education level, perceived reciprocal benefits, perceived loss of knowledge power, perceived improvement in reputation, and perceived ease of use, as well as factors related to subjective norms (leadership and organizational culture) and perceived behavioral control (service availability and perceived

awareness), Principal Component Analysis (PCA) was conducted. Following the guidelines of Juile (2005) and Field (2013), a correlation coefficient greater than 0.3 was considered acceptable for inclusion in the analysis.

The results, as presented in Table 2, indicate that all nine variables exhibited acceptable correlation coefficients ($r > 0.3$), suggesting their suitability for factor analysis. However, further analysis is necessary to ensure the reliability and validity of the data.

Table 3 KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.864
Bartlett's Test of Sphericity	Approx. Chi-Square	2369.717
	Df	36
	Sig.	.000

Source: Survey 2023

To assess the suitability of the data for factor analysis, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was employed. According to established guidelines (Kaiser, 1974; Hair et al., 2007; Pallant, 2011; Field, 2005; Field, 2013), a KMO value exceeding 0.5 indicates *adequate sample size for factor analysis*. In the current study, the KMO value was 0.864 (Table 3), suggesting a high level of sampling adequacy. Furthermore, Bartlett's test of sphericity yielded a significant result ($p = 0.000$), indicating that the correlations within the dataset are statistically significant and *suitable for factor analysis*.

Table 4: Communalities

Communalities		
	Initial	Extraction
EDU	1.000	.796
PRB	1.000	.822
PLKP	1.000	.816
PIR	1.000	.670
PEU	1.000	.675
LEAD	1.000	.669
OC	1.000	.651
SA	1.000	.645
PA	1.000	.574

Extraction Method: Principal Component Analysis.

Source: Survey 2023

To evaluate the reliability of the data, communalities for each construct were calculated. Communalities represent the proportion of variance in each variable explained by the factors. As shown in Table 4, all variables exhibited communalities exceeding 0.5, indicating that a substantial portion of the variance in each variable was accounted for by the extracted factors. Therefore, no variables were excluded from further analysis.

Table 5: Total Variance Explained

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
	1	5.151	57.233	57.233	5.151	57.233	57.233	3.959	23.994
2	1.166	12.954	70.187	1.166	12.954	70.187	2.357	26.193	70.187
3	.824	9.160	79.347						
4	.563	6.260	85.607						
5	.480	5.333	90.940						
6	.292	3.245	94.185						
7	.225	2.504	96.689						
8	.186	2.064	98.753						
9	.112	1.247	100.000						

Extraction Method: Principal Component Analysis.

Source: Survey 2023

The results of the factor analysis revealed the number of factors extracted, their corresponding eigenvalues, the percentage of variance explained by each factor, and the cumulative variance explained by all preceding factors. The first factor accounted for 43.994% of the variance in knowledge-sharing behavior, while the second factor accounted for an additional 26.193%, resulting in a cumulative variance of 70.187%. Collectively, these nine factors explained 94.185% of the total variance in knowledge-sharing behavior.

Table 6: Components extracted

Rotated Component Matrix ^a		
	Component	
	1	2
Education	.865	
PRB	.891	
PLKP	.893	
PIR	.733	
PEU	.717	
LEAD	.645	.502
OC		.750
SA		.772
PA		.747
Extraction Method: Principal Component Analysis.		
Rotation Method: Varimax with Kaiser Normalization. ^a		
a. Rotation converged in 3 iterations.		

Source: Survey 2023

This study also revealed the loadings of each variable on the two extracted factors (Grouping similar factors together). The higher the absolute value of the loading, the more the factor contributes to the variable and Loadings (λ) that are greater than 0.5, highly correlated/good for factor analysis. In this study, all variables exhibited factor loadings exceeding 0.5. So, it is **accepted** for factor analysis.

4.2. Confirmatory Factor Analysis

Model Fitness Evaluation

Evaluating model fit is crucial to determine how well the model represents the collected data. To assess model fit, this study employed both exploratory and confirmatory factor analysis techniques.

Table 7: Fit indices for the performance model

Fit index	Recommended value	Source
χ^2 (p-value)	≥ 0.05	Byrne (2016)
CMIN/df	≤ 3	Gefen et al .(200)
GFI	≥ 0.9	Kehman et al (20150)

IFI	≥ 0.9	Koroppet et al. (2014)
CFI	≥ 0.9	Lei and Wu (2007)
RMSEA	≤ 0.06	HU and Bentler (1999)

Source: Adopted from Pervan, Pervan, Curak, and Kramaric, 2018

4.2.1. Factor Analysis of Attitude of Knowledge sharing

At first, the researcher checked the model fit for **Attitude of Knowledge sharing** by using Factor Analysis. Commonly used model fitness indicators and associated cut points: As it can be seen on the table above, goodness of the model fit has been obtained prior to the modification. Thus, all latent variables and its indicators (average value of items) under consideration can be used for SEM purpose.

Table 8: Model Fit Summary for Attitude of Knowledge sharing

Indicators	Rule	Vale obtained	goodness of the model fit
x2 (p-value)	≥ 0.05	0.60	Well fit
CMIN/df	≤ 3	0.851	Well fit
GFI	≥ 0.9	0.997	Well fit
IFI	≥ 0.9	1	Well fit
CFI	≥ 0.9	1	Well fit
RMSEA	≤ 0.06	0.000	Well fit

Source: Survey 2023

All factor loadings before modification are greater than 0.5 and as per existing rule all items are acceptable for further processing. Therefore, all the 5 items are **accepted and will be used for SEM analysis**. According to the above data, goodness of the model fit is well fit.

Table 9 Model Fit Summary for subject norm

Indicators	Rule	Vale obtained	goodness of the model fit
x2 (p-value)	≥ 0.05	0.238	Well fit

CMIN/df	≤ 3	1.356	Well fit
GFI	≥ 0.9	0.996	Well fit
IFI	≥ 0.9	0.999	Well fit
CFI	≥ 0.9	0.999	Well fit
RMSEA	≤ 0.06	0.031	Well fit

Source: Survey 2023

All factor loadings before modification are greater than 0.5 and as per existing rule all items are acceptable for further processing. Therefore, all the 3 items are **accepted and will be used for SEM analysis**. According to the above data, goodness of the model fit is well fit.

Table 10: Model Fit Summary for perceived behavioural control

Indicators	Rule	Vale obtained	goodness of the model fit
x2 (p-value)	≥ 0.05	0.05	Well fit
CMIN/df	≤ 3	1.073	Well fit
GFI	≥ 0.9	0.997	Well fit
IFI	≥ 0.9	0.999	Well fit
CFI	≥ 0.9	0.999	Well fit
RMSEA	≤ 0.06	0.02	Well fit

Source: Survey 2023

All factor loadings before modification are greater than 0.5 and as per existing rule all items are acceptable for further processing. Therefore, all the 3 items are **accepted and will be used for SEM analysis**. According to the above data, goodness of the model fit is well fit.

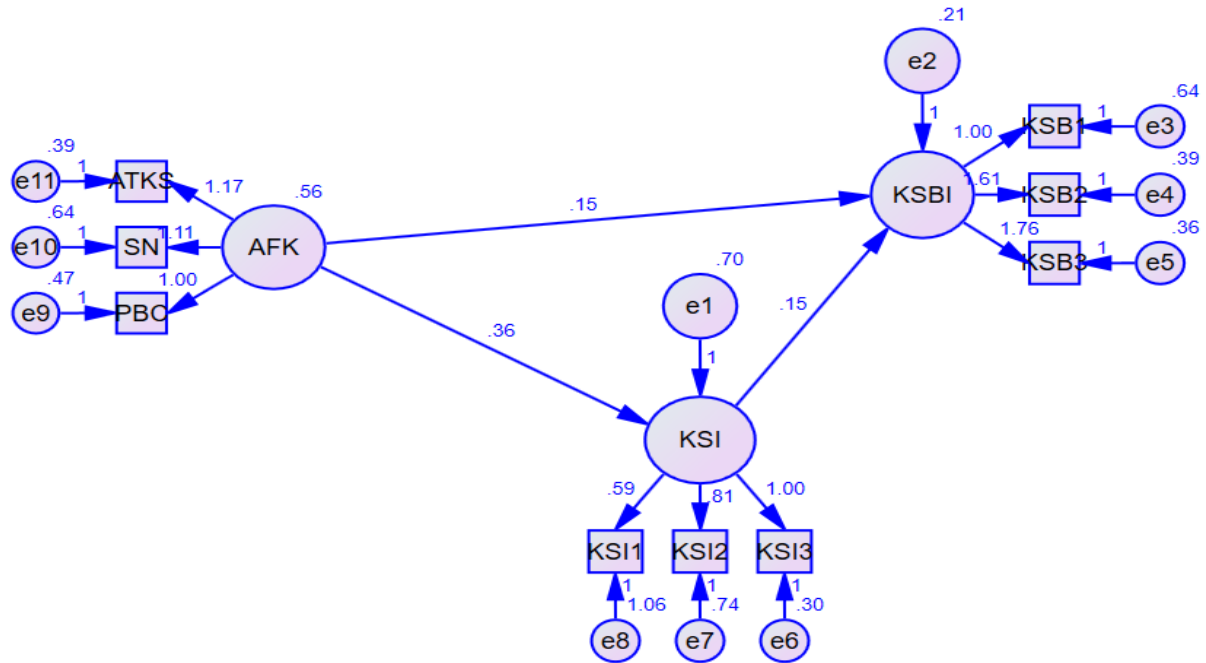


Table 11: Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
KSI	<---	AFK	.363	.077	4.698	***	par_1
KSBI	<---	KSI	.151	.042	3.589	***	par_2
KSBI	<---	AFK	.152	.046	3.294	***	par_3
KSBI	<---	KSBI	1.000				
KSB2	<---	KSBI	1.611	.174	9.263	***	par_4
KSB3	<---	KSBI	1.755	.191	9.171	***	par_5
KSI3	<---	KSI	1.000				
KSI2	<---	KSI	.807	.103	7.861	***	par_6
KSI1	<---	KSI	.586	.088	6.688	***	par_7
PBC	<---	AFK	1.000				

			Estimate	S.E.	C.R.	P	Label
SN	<---	AFK	1.111	.092	12.056	***	par_8

Source: Survey 2023

From the above table it can be concluded that all variable have positive relationship and P Value is zero which is acceptable.

4.3 Hypothesis testing

To test the research hypotheses, a combination of statistical techniques was employed. Confirmatory Factor Analysis (CFA) was utilized to examine the hypothesized relationships between variables and assess their underlying structure. CFA allows researchers to test specific hypotheses about the presence and nature of latent variables within the data.

Correlation analysis was employed to investigate the strength and direction of the relationship between pairs of variables. The absolute value of the correlation coefficient provides an indication of the strength of the relationship. To analyze hypotheses H1 and H14, correlation analysis was utilized. Furthermore, multiple regression analysis was conducted to examine the combined effects of multiple independent variables on the dependent variable.

Table 12: Summary of Hypothesis Test

No	Null hypothesis statements	Test	Decision Null hypothesis
1	Ha1 - Individuals with a strong intention to share knowledge are more likely to exhibit higher levels of actual knowledge sharing behavior.	P>0.05	Reject Ho Accept Ha
2	Ha2 - High levels of perceived behavioral control over knowledge sharing positively influence the extent of actual knowledge sharing behavior.	P<0.05	Reject Ho Accept Ha
3	Ha3 - A favorable attitude towards knowledge sharing significantly increases an individual's intention to share knowledge.	P<0.05	Reject Ho Accept Ha
4	Ha4 - A strong subjective norm that supports knowledge sharing positively influences an individual's intention to share knowledge.	P>0.05	Reject Ho Accept Ha
5	Ha5 - High levels of perceived behavioral control over knowledge sharing positively influence an individual's intention to share knowledge.	P<0.05	Reject Ho Accept Ha

6	Ha6 - Higher levels of education are positively associated with more favorable attitudes towards knowledge sharing among knowledge owners.	P<0.05	Reject Ho Accept Ha
7	Ha7 - Perceived reciprocal benefits from knowledge sharing significantly enhance a knowledge employee's attitude towards knowledge sharing.	P>0.05	Reject Ho Accept Ha
8	Ha8 - Perceived loss of knowledge power negatively influences a knowledge employee's attitude towards knowledge sharing.	P<0.05	Reject Ho Accept Ha
9	Ha9 - Perceived improvement in reputation to knowledge sharing knowingly influences a knowledge employee's attitude towards knowledge sharing.	P<0.05	Reject Ho Accept Ha
10	Ha10 - Perceived ease of use of knowledge sharing systems significantly enhances stakeholders' attitudes towards knowledge sharing.	P>0.05	Reject Ho Accept Ha
11	Ha11 - Strong leadership support for knowledge sharing significantly increases the subjective norm among employees to share their knowledge.	P<0.05	Reject Ho Accept Ha
12	Ha12 - Organizational culture significantly influences knowledge sharing behavior among employees.	P<0.05	Reject Ho Accept Ha
13	Ha13 - High service availability significantly influences a knowledge employee's Perceived Behavioral Control over knowledge sharing.	P>0.05	Reject Ho Accept Ha
14	Ha14 - Awareness positively influences a knowledge employee's Perceived Behavioral Control over knowledge sharing.	P<0.05	Reject Ho Accept Ha

Source: Survey data, 2023

4.4. Discussion

The findings of this study supported Hypothesis 1, demonstrating a statistically significant positive relationship between intention toward knowledge sharing and actual knowledge-sharing behavior. This relationship was supported by a path coefficient of 0.361 and a t-value of 9.753 ($p < 0.01$). These results align with previous research by Bock and Kim (2001) and Wu and Zhu (2012), who also observed a positive association between these constructs. However, this study found that intention toward knowledge sharing explained a substantially larger proportion of variance in knowledge-sharing behavior (approximately 56%) compared to previous studies, which reported explained variance of 1.6% and 41%, respectively.

The results of this study provided strong support for Hypothesis 2. A path coefficient of 0.650 and a t-value of 15.962 ($p < 0.01$) indicated a significant positive relationship between higher levels of behavioral control and enhanced knowledge-sharing behavior. These findings suggest that while intention plays a role, individuals are more likely to engage in knowledge-sharing activities when they have the necessary time,

resources, and opportunities to do so, highlighting the importance of facilitating an enabling environment for knowledge sharing within organizations.

The findings of this study supported Hypotheses 3, 4, and 5, by revealing that attitudes toward information sharing, subjective norms, and perceived behavioral control all had a significant and positive influence on the intention to share knowledge. A significant positive relationship was found between attitude toward knowledge sharing and the intention to share knowledge at coefficient 0.205 and a t-value of 4.073 ($p < 0.01$), as well as a significant positive relationship between subjective norm and the intention to share knowledge at coefficient 0.203 and a t-value of 3.928 ($p < 0.01$). A substantial positive link was established between perceived behavioral control and the intention to share knowledge, with a path coefficient of 0.489 and a t-value of 10.276 ($p < 0.01$). These findings align with previous research based on the Theory of Planned Behavior. Collectively, these three factors explained approximately 45% of the variance in the intention to share knowledge, indicating their significant influence on individuals' intentions to engage in knowledge-sharing activities.

The study also investigated the influence of several factors, including education level, perceived reciprocal benefits, perceived loss of knowledge power, perceived reputation enhancement, and ease of using technology, on the attitudes of knowledge workers towards sharing knowledge. The analysis revealed that four factors significantly predicted these attitudes: education level (Hypothesis 6, path coefficient = 0.216, $t = 4.299$, $p < 0.01$), perceived reciprocal benefits (Hypothesis 7, path coefficient = 0.280, $t = 5.238$, $p < 0.01$), perceived loss of knowledge power (Hypothesis 8, path coefficient = -0.266, $t = 6.066$, $p < 0.01$), and ease of using technology (Hypothesis 10, path coefficient = 0.139, $t = 2.66$, $p < 0.01$). The findings of A. M. Lange (2014) are in agreement with this one. However, in contrary to expectations, perceived reputation enhancement (Hypothesis 9, path coefficient = 0.079, $t = 1.39$, $p > 0.10$) did not significantly influence knowledge sharing attitudes when considered alongside other factors. This finding contradicts the predictions of social exchange theory and the findings of Hinds and Pfeffer (2019), who highlighted the importance of perceived reputation enhancement as a motivator for knowledge sharing. However, it is consistent with the findings of Alam et al. (2018). Furthermore, while leadership demonstrated a significant positive effect on subjective norms (Hypothesis 11, path coefficient = 0.298, $t = 6.469$, $p < 0.01$), the influence of organizational culture on subjective norms (Hypothesis 12) was not supported.

The above findings regarding the influence of organizational culture on knowledge sharing behavior were inconclusive. While organizational culture showed a positive relationship with knowledge sharing behavior ($t = 1.849$, $p < 0.10$), the effect size was small (coefficient = 0.080), contrary to expectations. This finding aligns with the observations of Babalhavaeji and Kerman (2017). Despite this unexpected result, this

study emphasized on the critical role of leadership on fostering knowledge sharing behavior among stakeholders in Bank of Abyssinia by utilizing social networks. Hypotheses 13 and 14, which examined the impact of social network availability and awareness on knowledge sharing, were both supported. Hypothesis 13 demonstrated a strong positive relationship between social network availability and knowledge sharing behavior (path coefficient = 0.484, $t = 13.687$, $p < 0.01$).

Similarly, Hypothesis 14 revealed a significant positive association between awareness of knowledge sharing benefits and stakeholder engagement (path coefficient = 0.228, $t = 6.852$, $p < 0.01$). These findings, consistent with the research of Babalhavaeji and Kerman (2017), suggest that readily accessible social networks can effectively reduce barriers to knowledge sharing and encourage greater participation among stakeholders in Jordanian hospitals. Furthermore, the study highlights the importance of raising awareness among stakeholders regarding the value and benefits of knowledge sharing within the organization.

5. Conclusions and Recommendations

Cultivating a thriving knowledge-sharing culture within an organization necessitates a strong emphasis on core values and supportive initiatives culture that foster a harmonious and collaborative work environment. To encourage active participation in knowledge-sharing activities, individuals require appropriate support and incentives. These motivators should facilitate continuous learning, stimulate innovative thinking, and support career advancement. In the absence of such an environment that facilitates these influential factors, the organization's knowledge-sharing culture may not reach its full potential. Furthermore, organizations must invest in robust IT infrastructure to ensure that employees have the necessary tools and resources to readily share knowledge with each other. While a combined approach to knowledge sharing is generally beneficial, neglecting crucial modes such as socialization, internalization, and externalization can have detrimental consequences for the organization's overall knowledge-sharing efforts.

This research offers valuable insights for Bank of Abyssinia (BOA), management and stakeholders seeking to effectively promote knowledge-sharing practices among employees. The findings of this study can also serve as a benchmark for practitioners interested in investigating the factors influencing knowledge sharing within workplaces. Furthermore, this study provides a valuable foundation for the design and implementation of a knowledge management system at BOA. By considering the theoretical framework outlined in this research, organizations can effectively assess their current knowledge-sharing practices and identify areas for improvement. The study's findings reveal that while the combined approach to knowledge sharing is currently implemented within the bank, a significant reliance on this mode is there while neglecting socialization, internalization, and externalization can have detrimental consequences.

Suggestions for Future Research

While this research offers valuable insights and lessons regarding knowledge-sharing practices, certain limitations should be acknowledged as they point towards avenues for future research. Firstly, the study focused on only one commercial bank in Ethiopia, and the sample size of 381 respondents may have influenced the study's findings. Future research could benefit from a larger number of participating banks and a more substantial sample size to enhance the robustness of the findings. Secondly, this research focused solely on the banking sector. Future studies conducted across various sectors could validate the current findings and potentially uncover additional insights. Investigating different sectors would allow researchers to gain a broader understanding of the phenomenon or conduct comparative analyses between commercial banks and other organizations. Finally, future research could investigate the moderating effects of various factors on the research model to further deepen our understanding of knowledge-sharing dynamics.

Implications of the Study

This exploratory and interpretive study presents several avenues for future research, both in terms of refining existing theoretical frameworks and validating novel findings. Further investigation is crucial to advance our understanding of the emerging science of assessment. Future research should prioritize those areas that bridge the gap between cognitive and measurement science. The significance of this research is to bring about a possible solution for these challenging problems to share the knowledge. The government: may show the way to improve employees' knowledge sharing skill in different Organizations. Policymakers can utilize the research findings as valuable input for informed decision-making. Furthermore, this research serves as a valuable resource for students, other researchers, and the community, as it is now available online. Finally, this research experience has provided the researcher with valuable knowledge and skills in problem-solving using research methodologies.

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