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Is Management of Knowledge affecting the Competitive Advantage and Performance of Commercial Bank of Ethiopia?

DAWIT JABO

PhD Candidate; Department of Marketing, Bule Hora University, Ethiopia

BERHANU BORJI

Professor, Department of Management; Hawassa University, Ethiopia

&

SHASHI KANT*

Department of Management, Bule Hora University, **Ethiopia**

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ABSTRACT

The specific goal of the current empirical research was to examine the causes and consequences of knowledge management views in Ethiopian commercial banks when competitive advantage is employed as a mediator. A sample of 383 bank account holders in the Ethiopian town of Dilla was the subject of the investigation. Simple random sampling was the method used to select a sample. SEM was employed for mediation and model fitness, the CFA test for validity and hypothesis testing /KMO test used for dependability and data sufficiency. The results confirmed that the knowledge management practices and organizational performance of the sampled firm were modest. This implies that companies should keep enhancing their knowledge management procedures to boost organizational effectiveness. This leads the study to conclude that knowledge acquisition, sharing, retention, and utilization, when paired with competitive advantage, significantly predict the organizational performances of commercially owned banks in Ethiopia. Commercial banks should therefore closely monitor these kinds of knowledge management techniques in order to improve bank performance.

Keywords: Knowledge Management, Competitive Advantage, and Bank Performance.

1. INTRODUCTION

Knowledge management and information are important subjects in today competitive and information-driven world. Knowledge management has recently come to light as a tactical tool for enhancing organizational effectiveness (Negeri et al., 2023; Arsawan et al., 2022). Knowledge management (KM) is the practice of incorporating individual knowledge into an organization to enhance performance (Mahdi et al., 2019). By creating, acquiring, organizing, and using information, KM also aids in achieving and improving organizational goals (Ferreira et al., 2020). Other elements of knowledge management (KM) include gathering, sharing, storing, and applying knowledge (Ogutu et al., 2023). One of the main benefits of applying knowledge management (KM) techniques in an organization is the improvement of organizational performance (Sahoo et al., 2023).

Research indicates that there is a positive relationship between operational and organizational performance and knowledge management (KM) practices. A positive association between organizational performance and the combination of explicit and tacit knowledge management strategies suggests that KM has a synergistic effect on performance (Santoro et al., 2019). Implicit and explicit knowledge are the two categories. Tacit knowledge is that which is retained in people's brains but cannot be expressed clearly, whereas explicit information can be easily shared and

codified (Sahoo et al., 2023). In organizations, both types of knowledge exist and need to be managed. Knowledge management (KM) covenants with the organized and preexisting structure to govern all information-connected behavior of the businesses when competitive advantage is used as a mediator (Ogutu et al., 2023).

In this era of information and communication, knowledge management (KM) is crucial for enhancing performance and promoting sustainable growth since knowledge is the main source of long-term competitive advantage (Arsawan et al., 2022). Lack of knowledge management these days leads to lost chances and a weakened competitive advantage (Di Vaio et al., 2021). Consequently, organizations cease their upward trajectory toward improved performance (Mansur, 2022). Knowledge in the workplace can be characterized by an individual's or an organization's ability to identify and react correctly when competitive advantage is utilized as a mediator. Supervisors, workers, and proactive individuals run it (Demir et al., 2023; Ogutu et al., 2023).

In Ethiopia, institutions and procedures for the creation and exchange of knowledge are given little to no consideration. Research has confirmed that, despite KM's lack of popularity or development in Ethiopia, there are some related initiatives in this area (Mahdi et al., 2019). In the commercial sector, most labor is contingent upon the knowledge and skills of employees, managers, and fellow workers (Ganguly et al., 2019). This implied that maintaining employee satisfaction is crucial. Businesses are being forced to adopt cutting-edge knowledge management solutions by increasing client demand and competitiveness (Sahoo et al., 2023). The tiny team of academics conducting this study focused on evaluating the knowledge organization activities in Ethiopian commercial banks. The connection between organizational performance and competitive advantage is crucial in this context.

1.1 STATEMENT OF THE PROBLEM

Organizations are realizing that knowledge is essential to achieving a competitive edge and a fundamental tool for enhancing organizational performance in the modern era of information (Shea et al., 2023). An organization's success is determined by the knowledge acquired both inside and outside the firm, and knowledge management has emerged as a crucial success component (Nezafati et al., 2023). Human knowledge has become so valuable that it is now seen as essential to daily life, and knowledge management is becoming a crucial component of many academic disciplines (Demir et al., 2023).

Knowledge is the most precious asset in the banking industry, and commercial banks are vying with public banks for a competitive advantage (Nezafati et al., 2023). It has become apparent how important knowledge organization activities are to improving organizational performance. This is demonstrated by the Balanced Score Card, which consists of the following elements: internal business processes, learning and growth, finance, and customer satisfaction. (Knowledge Acquisition, Storing, Sharing, and Application). The development of Ethiopia and overall economic activity depend on Ethiopian commercial banks (Wakjira et al., 2022).

Therefore, in order to achieve organizational goals and prevail in the current fierce competition, commercial banks must acknowledge and implement knowledge management practices in their services through knowledge collection, storing, transfer or sharing, applying, and employing (Mahdi et al., 2019). Losing the capacity to handle knowledge is tantamount to losing competitive strength in the knowledge-driven and competitive world of today. This implies that an organization's efficiency may be impacted by insufficient or improper knowledge management (Mansur, 2022). Therefore, it is imperative to conduct research studies aimed at analyzing

knowledge management methods and their relationship to organizational performance when competitive advantage is employed as a mediator (Fikadu et al., 2023).

However, to date, very few studies have been conducted in Ethiopia, and almost all of them have concentrated primarily on government institutions, with little attention paid to commercial banks (Wakjira et al., 2022). Because knowledge management is not as well-known, this study attempts to close the application gap that it has in commercial banks and the business sector as a whole. This research will focus on knowledge management procedures in Ethiopian commercial banks in order to gain a deeper understanding of the relationship between these procedures and organizational successes whenever competitive advantage is used as a mediator.

2. LITRATURE REVIEW

2.1 Knowledge Management

There isn't a commonly accepted definition of knowledge management due to the concept's broad reach and the complexity of information (Mahdi et al., 2019). Due to the acceptance of knowledge as a vital resource for both improved organizational performance and competitive advantage in this knowledge era, the world has recently been obliged to acknowledge the significance of information and knowledge management concerns (Ferreira et al., 2020). Nonetheless, some academics have offered varied conceptions of knowledge management (Mansur, 2022). Quick emergence of novel offerings, staff training, satisfaction and loyalty, management decision making, growth and innovation, productivity and efficiency as demonstrated by cost savings, relationships with clients, decision making, creativity, and corporate agility (Demir et al., 2023) were all areas where knowledge management was expected to excel (Ganguly et al., 2019).

Knowledge management is widely acknowledged in academic literature as a process that encompasses the gathering, organizing, sharing, and utilizing of knowledge (Shea et al., 2023). Apart from this procedure, there exist essential instruments that facilitate and enhance knowledge management procedures in the workplace (Wakjira et al., 2022). These techniques are believed to negatively affect knowledge management effectiveness in relation to organizational performance.

2.2. Knowledge Management Process

For every organization to maintain its competitive advantage and experience consistent growth, a robust knowledge management strategy is crucial. The principal objectives of the process are to enhance organisational efficiency and optimise the utilisation of collective knowledge within the enterprise (Nezafati et al., 2023). According to Ganguly et al. (2019), the knowledge process includes information collection and exchange as well as supportive components including organizational structure and technology that serve as building blocks for knowledge management features. Organizational effectiveness and the knowledge management process, which consists of four basic steps: collection, storage, sharing, and application of knowledge, are highly correlated.

A company's management method is an important aspect of its knowledge. Ferreira et al. (2020) list these as knowledge development and acquisition, knowledge transmission, knowledge interpretation for the purpose of advancing organizational goals, and knowledge utilization for the achievement of those goals.

2.3. Knowledge Creation or Acquisition

This process include gathering new data or revising the organization's current body of explicit and tacit knowledge. Knowledge acquisition is the process of obtaining, classifying, and extracting information from human experts in order to transform it into a computer-readable format (Adula et

al., 2023). Knowledge capture is the ability of an organization to ensure that information that is available inside it is stored for later use in manuals or databases. Companies need to search both within and externally for new concepts, data, and expertise in general (Mansur, 2022).

Knowledge generation and extension are made possible by collaboration across organizations. It is a task that creates new knowledge through the right application of knowledge obtained both inside and outside the organization (Berwal et al., 2022). In contrast to externalized knowledge, which is represented by a traditional or virtual sign, internalized knowledge is accessible to an individual through the group and the organization as a whole (Shea et al., 2023).

2.4. Knowledge Storage

Keeping both new and current knowledge for later or immediate use is known as "storing knowledge." According to Ferreira et al. (2020), it is crucial to preserve any explicit knowledge that individuals within organizations obtain. Organizations should organize and manage knowledge to make it more readily available. For later use, it is the process of compiling and documenting organizational and recently acquired knowledge (Mansur, 2022). To lead the market, improve internal efficiency, and boost customer satisfaction, data needs to be collected on a regular basis, turned into actionable facts (information), and kept accessible to all parties through journals, bulletins, magazines, and annual abstracts, among other formats (Asefa et al., 2022).

2.5. Knowledge Transfer or Dissemination

Organizations can convert individual knowledge into collective or organizational knowledge through this essential knowledge management process. Knowledge sharing is the exchange of information among employees within an organization. A few strategies that promote knowledge sharing within an organization are rewards, benefits, and associations of practice (Shea et al., 2023). This is a crucial process that includes the exchange of knowledge between individuals or networks of persons, between an organization of individuals and other organizations, and between an individual and specific information sources. New knowledge cannot be created without information sharing (Shea et al., 2023).

Organizations must ensure that knowledge is transformed from tacit to explicit during the process in order to prevent the loss of tacit knowledge (Di Vaio et al., 2021). To facilitate knowledge management and prevent information loss, they must also put in place formal procedures and encourage a culture of knowledge sharing among staff members (Berwal et al., 2022). In order to efficiently distribute knowledge and stop the loss of organizational memory, they must also employ technologies. Knowledge sharing leads to innovation and fresh information, which improves organizational performance (Asefa et al., 2022).

2.6 Organizational performance

According to Negeri et al. (2023) and Asefa et al. (2022) it describes the actions an organization takes to boost output, prepare for the future to close performance gaps, and strategy to surpass the competitors. According to the organization's specified overall goals, organizational performance can be defined and assessed from a number of perspectives (Mansur, 2022). Performance is the act of completing a task; generally speaking, organizational performance is linked to three primary areas of the company's outputs: 1. A rise in financial (profit, return on investment, return on asset, etc.) 2. Sales and market share, among other metrics, related to the product and promotion 3. Economic value, or returns to investors.

In order to manage organizational performance in the present years, several organizations have attempted to employ the Balanced Score Card (BSC), a management tool that assists your business in creating, monitoring, and accomplishing its business goals and objectives (Negeri et al., 2023). From the perspectives of the four balanced scorecards—learning and growth, internal processes, customers, and finances—BSC is a holistic framework that explains and conveys the advantages of employing integrated performance objectives, targets, metrics, and strategic initiatives (Ogutu et al., 2023).

A balanced scorecard's four perspectives are comparable to a tree's four roots, branches, and leaves (Berwal et al., 2022). Customers are the branches, growth and learning viewpoints are the roots, and financial aspects perspectives are the leaves (Mansur, 2022). Every viewpoint is influenced by those above and below it. It is a continuous cycle of renewal and progress. Money, like falling leaves, fertilizes the ground and the roots, fostering growth across the entire company (Berwal et al., 2022).

2.7 EMPIRICAL LITERATURE REVIEW

2.7.1 Knowledge management and organization Performance

Information management is essential for maintaining competitive advantage and increasing productivity. Acquiring, analyzing, archiving, and disseminating information on goods, manufacturing processes, and components are deliberate acts (Shea et al., 2023). Knowledge management practices would aid with problem-solving, dynamic learning, strategy planning, decision-making, and minimizing burnout in addition to enhancing organizational intelligence and flexibility (Ogutu et al., 2023).

You might be able to create a more fulfilling work environment by providing the necessary resources at work to gather, organize, and share tacit knowledge. Consequently, the team experiences an increase in trust, leading to a happier and more productive group dynamic (Panigrahi et al., 2022). Collaboration, idea sharing, and access to the most latest data are all made easier and more favorable by knowledge management. It also makes it possible for individuals to cultivate the innovation and cultural changes needed to progress the business and adjust to changing consumer expectations (Mansur, 2022).

2.7.2. Competitive advantage and Knowledge management

The findings show a positive correlation between knowledge management and competitive advantage in particular, and that this relationship is further enhanced by the interaction impact of market orientation (Mahdi et al., 2019). An organization's competitiveness is boosted when market-based information is appropriately applied (Arsawan et al., 2022). To gain these skills, organizations need to concentrate on a few key areas: employing competent personnel; supplying training; motivating, empowering, and providing incentives; preserving a flexible work environment; upholding robust databases; and cultivating internal human capital-related capabilities, which will offer them a competitive advantage (Ferreira et al., 2020).

Greater success will come from a company that can adapt fast and apply what it has learned ahead of its competitors. A company needs to be able to develop new skills while enhancing its current ones in order to gain or maintain a competitive edge (Mansur, 2022). Promotions emphasize knowledge management as an essential and crucial element of maintaining an organization's competitive power and ability to survive (Berwal et al., 2022). "Knowledge" is the central idea. The administration of knowledge must facilitate the process of finding the data. It increases your

productivity and efficiency while enhancing your work ethic and lowering your inclination to take risks (Ogutu et al., 2023).

2.7.3. Competitive advantage and organization Performance

Competitive advantage additionally reinforces the relationship between competence and knowledge management through organizational performance (Sahoo et al., 2023). Managers at all levels can increase the effectiveness of human resources, which will strengthen the company's competitive edge (Demir et al., 2023). A business can differentiate itself from its competitors by producing goods or rendering services at a lower cost or with greater efficiency. These elements enable the profitable company to outperform its competitors in the sector in terms of revenue or profit margins (Derese et al., 2023).

Consumers view a company's competitive advantage as what makes it different from rivals (Yadete et al., 2023). Ferreira et al. (2020) claim that these benefits aid in an organization's ability to attain and sustain increased profits, a more favorable dynamic profile, or greater levels of client loyalty. Businesses are forced by market rivalry to enhance their products, which is then passed on to customers in the form of more specialized, effective, and superior goods (Di Vaio et al., 2021). For consumers, the most obvious advantages of competition are cheaper prices and more purchasing power. Offering a product or service that is more value than that of rivals in the same sector to their target market is beneficial for businesses (Derese et al., 2023). Over time, this enhances the company's standing in the industry and generates more income than rivals (Ogutu et al., 2023).

2.7.4. Mediation of Competitive advantage among Knowledge management and organization Performance

From the perspective of competitive advantage and performance, a firm's appealing position of strategic relevance to obtain competitive advantage is identified as a result of its strategic activities (Demir et al., 2023). It has long been seen as an essential tool for any business hoping to beat rivals and attain better results (Ganguly et al., 2019). To create value for customers, it means making the decision to carry out the business's different activities in a way that sets it apart from rivals. According to Di Vaio et al. (2021) this suggests that competitive advantage looks at how businesses manage their operations to improve performance.

Knowledge management has long been seen as an important idea and, more precisely, as a strategic resource in the field of strategic management (Mansur, 2022). As a result, extensive research has been conducted on a wide range of subjects, such as the various facets of organisational practices and performance indicators employed by businesses, as well as the direct and indirect relationships between accomplishment influence and knowledge management, which have yielded mixed results in numerous commercial contexts and large organisations (Kant et al., 2022). The conceptual evolution of the knowledge management idea is becoming more complex due to the inconsistent results. To address the inconsistent findings about the efficacy of knowledge management, a variety of organisational strategies have been employed as mediators (Sahoo et al., 2023).

However, competitiveness edge has gotten less attention, particularly in the banking sectors of emerging nations, despite scholars' arguments that knowledge management and an advantage over others must be matched for a synergistic impact (Shea et al., 2023). For instance, improving bank knowledge management will help the economy since bank owners are seen as the innovators in their field (Yadete & Kant, 2023). Furthermore, it is incorrect to apply management theories and research findings to the banking business since big organisations differ in their knowledge systems capabilities and decision-making processes. By investigating the role of competitive advantage in

moderating the relationship between performance and knowledge management, this study seeks to narrow this gap (Sahoo et al., 2023).

2.8. Conceptual Framework

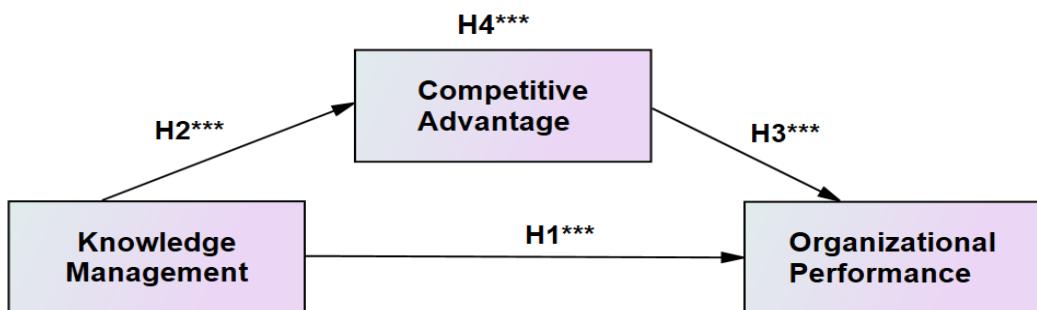


Figure 1: Proposed Model

Source: Researchers Proposed Model (2023)

4. RESEARCH METHOD

4.1. Sampling and Population

The population being studied consists of the 210,039 customers of the Commercial Bank of Ethiopia, which has six bank locations in the Dilla region. As recommended by Dillaman (2000), the inquiry employed an arithmetical method to calculate the sample size using a sampling formula.

$$n = [(N)(p)(1-p)] / [(N-1)(B/C)^2 + (P)(1-P)],$$

Where N = 210,039, P = 0.5, B = 0.05, C = 1.96

$$n = [(210,039)(0.5)(1-0.5)] / [(210,039-1)(0.05/1.96)^2 + (0.5)(1-0.5)]$$

$$n = 383$$

Reducing the possibility of biases in the sample process and systematic residuals requires the use of this sampling technique. In order to make generalizable conclusions about the population, it is also important to find a representative sample. As a result, under the proportional stratified method, the sample size for each stratum in the bank branches corresponds to the population size of that stratum. Convenience sampling techniques are used to get samples when the sample size is reduced to 381 samples. Members of the community under research who satisfy particular practical criteria—like ease of access, near vicinity, and availability for engagement at a specified time—are included for the inquiry using convenience sampling, a sort of non-probability sampling.

4.2. Scale and Proxies Used for Analysis

Knowledge management was quantified using its four components: application, sharing, storing, and acquiring (Ferreira et al., 2020). Each component, which is also essential to performance management, determines the level of knowledge management techniques in Ethiopian commercial banks (Ganguly et al., 2019). The customer's perspective, internal business processes, learning and growth, and financial views are the four basic components that make up BSC, which is now utilised to evaluate organisational performances. A Likert scale is used to rate performance.

The current situation of Ethiopian commercial banks requires management to focus on a new and important paradigm of thinking. The collection, archiving, dissemination, and application of information are all examples of knowledge management, as they all support knowledge management and ensure the general efficacy of an organisation.

4.3. Method for Data Analysis

Structural equation modelling, or SEM, is the data-driven technique used in this work. A 5% relevance criterion is used to the t-test in order to ascertain if direct affect is there or not. A hypothesis may only be evaluated as accepting or rejecting if all of the following conditions are satisfied: if the likelihood value is larger than 5%, then H_0 is accepted and H_1 is refused; if the probability value is 5%, then H_0 is acknowledged and H_0 is denied. The competent advantage test is applied whether conducting a full or partial mediation.

4.4. Data Adequacy Test

For a factor analysis to be considered both acceptable and integer, the minimal sufficiency of data, as determined by the KMO, must be more than 0.5.

Table 1: Sample Adequacy Test

Source: SPSS result, 2023

The table 1 provided the results of a sample adequacy test conducted using SPSS software. The purpose of this test is to assess the sufficiency of the data for a particular analysis. Let's break down the information in the table 1. "Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy" measurers evaluate the adequacy of the sample for conducting factor analysis. In your case, the KMO value is 0.779, which indicates that the sample is reasonably adequate for factor analysis. The KMO value ranges from 0 to 1, with values closer to 1 indicating better sampling adequacy. "Bartlett's Test of Sphericity" test is used to determine whether the correlation matrix in the data is significantly different from an identity matrix, which is necessary for conducting factor analysis. The information provided under this heading includes: "Likelihood value" chi-square test statistic, which is a measure of the discrepancy between the observed correlation matrix and the identity matrix. In your case, the likelihood value is 1194.393. "Degrees of freedom" associated with the likelihood value. In your case, there are 20 degrees of freedom. The p-value associated with the likelihood ratio chi-square test. In your case, the p-value is 0.000, which indicates that the observed correlation matrix is significantly different from an identity matrix.

4.5. Hypothesis Testing

Table 2: Covariances

Covariance		Approximate	S.E.	C.R.	P	Hypothesis	
Knowledge Managements	<-->	Competitive Advantage	.139	.027	5.853	***	H2
Knowledge Managements	<-->	Organizational Performance	.224	.029	6.784	***	H1
Organizational Performance	<-->	Competitive Advantage	.231	.028	7.392	***	H3

Source: AMOS result, 2023

The table 2 of Covariances provided presents the covariances between different variables. The covariances are typically derived from a statistical analysis, such as a structural equation modelling (SEM) using AMOS software.

"Covariance" column represents the estimated covariance between pairs of variables. Covariance measures the extent to which two variables vary together. It indicates the strength and direction of the relationship between the variables. "Approximate S.E." column represents the approximate standard error associated with the estimated covariance. The standard error provides a measure of the uncertainty or precision in the estimate. "C.R." column represents the critical ratio, also known as the standardized estimate or z-value. It is calculated by dividing the estimated covariance by its standard error. The critical ratio is used to determine the statistical significance of the covariance estimate. "P" column represents the p-value associated with the critical ratio. The p-value indicates the probability of obtaining a critical ratio as extreme as the observed value, assuming the null hypothesis is true. In this case, "****" is used to denote that the p-value is very small, indicating a statistically significant result. "Hypothesis" column provides a label or identifier for each covariance estimate. In this case, the labels are denoted as H1, H2, and H3, which may correspond to specific hypotheses or research questions.

The table 2 shows the covariances between three variables: Knowledge Management, Competitive Advantage, and Organizational Performance. The covariances are presented with their corresponding standard errors, critical ratios, p-values, and labels. The significant covariances (as denoted by the "****" symbols) suggest that there are statistically significant relationships between these variables according to the analysis conducted in 2023 using AMOS software.

Table 3: Validity check

	CR	AVE	MSV	MaxR(H)	OP	KM	CA
OP	0.823	0.539	0.142	0.831	0.662		
KM	0.771	0.508	0.166	0.794	0.252	0.639	
CA	0.863	0.513	0.166	0.867	0.377	0.407	0.716

Note: OP= Organizational Performance; KM= Knowledge Management; CA= Competitive Advantage

Because organisational performance's AVE is more than 0.50. Additionally, knowledge management AVE is higher than 0.50. The results revealed no issues with validity.

Table 3 presented the results of a validity check for three variables: Organizational Performance (OP), Knowledge Management (KM), and Competitive Advantage (CA). The table includes several measures that assess the validity of these variables. Let's go through the information provided:

"CR" (Composite Reliability) measure assesses the internal consistency or reliability of the items measuring each variable. It indicates the extent to which the items within a variable are consistently measuring the same underlying construct. Higher values indicate better reliability. In this case: "AVE" (Average Variance Extracted) measure assesses the amount of variance captured by the items measuring each variable. It provides an indication of how well the items reflect the underlying construct. Higher values indicate better validity. In this case Organizational Performance (OP) has an AVE of 0.539, Knowledge Management (KM) has an AVE of 0.508 and Competitive Advantage (CA) has an AVE of 0.513.

"MSV" (Maximum Shared Variance) measure assesses the degree of overlap or shared variance between variables. It helps identify potential issues with discriminant validity, which is the extent to which variables are distinct from one another. Lower values indicate better discriminant validity. In this case, the MSV is 0.166 for each variable. "MaxR(H)" (Maximum Shared Variance Extracted) measure assesses the maximum amount of shared variance extracted by each variable.

It should be lower than the AVE values to indicate good discriminant validity. In this case Organizational Performance (OP) has a MaxR(H) of 0.831, Knowledge Management (KM) has a MaxR(H) of 0.794 and Competitive Advantage (CA) has a MaxR(H) of 0.867.

In summary, Table 3 provides several validity measures for the variables Organizational Performance (OP), Knowledge Management (KM), and Competitive Advantage (CA). The table includes measures of internal consistency (CR), variance captured (AVE), shared variance (MSV), maximum shared variance (MaxR(H)), and the labels for each variable. These measures help assess the reliability and validity of the variables in the study.

4.6. EQUATION MODEL

Table 4: Regression Weights

			Approximate	S.E.	C.R.	P	Label
Competitive Advantage	<---	Knowledge Managements	.421	.071	6.104	***	H2
Organizational Performance	<---	Competitive Advantage	.449	.059	7.311	***	H1
Organizational Performance	<---	Knowledge Managements	.418	.065	6.634	***	H3

Source: AMOS result, 2023

Table 4 presents the regression weights between variables in a regression analysis. These weights represent the strength and direction of the relationships between the predictor variable and the outcome variable. The table includes information such as the estimated regression weights, standard errors, critical ratios, p-values, and labels.

"Approximate S.E." (Standard Error) column represents the approximate standard error associated with the estimated regression weight. The standard error provides a measure of the uncertainty or precision in the estimate. "C.R." (Critical Ratio) column represents the critical ratio, also known as the standardized estimate or z-value. It is calculated by dividing the estimated regression weight by its standard error. The critical ratio is used to determine the statistical significance of the regression weight. "P" (P-Value) column represents the p-value associated with the critical ratio. The p-value indicates the probability of obtaining a critical ratio as extreme as the observed value, assuming the null hypothesis is true. In this case, "****" is used to denote that the p-value is very small, indicating a statistically significant result. "Label" column provides a label or identifier for each regression weight. In this case, the labels are denoted as H1, H2, and H3, which may correspond to specific hypotheses or research questions.

The table 4 shows the regression weights between three variables: Knowledge Management (KM), Competitive Advantage (CA), and Organizational Performance (OP). The regression weights are presented with their corresponding standard errors, critical ratios, p-values, and labels. The significant regression weights (as denoted by the "****" symbols) suggest that there are statistically significant relationships between these variables according to the analysis conducted in 2023 using AMOS software. Specifically, the results indicate the following relationships:

- Knowledge Management (KM) significantly predicts Competitive Advantage (CA), with a regression weight of 0.421 (C.R. = 6.104, $p < 0.001$, labeled as H2).
- Competitive Advantage (CA) significantly predicts Organizational Performance (OP), with a regression weight of 0.449 (C.R. = 7.311, $p < 0.001$, labeled as H1).

- Knowledge Management (KM) significantly predicts Organizational Performance (OP), with a regression weight of 0.418 (C.R. = 6.634, $p < 0.001$, labeled as H3).

These results suggest that Knowledge Management has a positive and significant impact on both Competitive Advantage and Organizational Performance, while Competitive Advantage has a positive and significant impact on Organizational Performance.

4.7 Mediation of Competitive Advantage Among Knowledge Management Along with Performance of Prganization

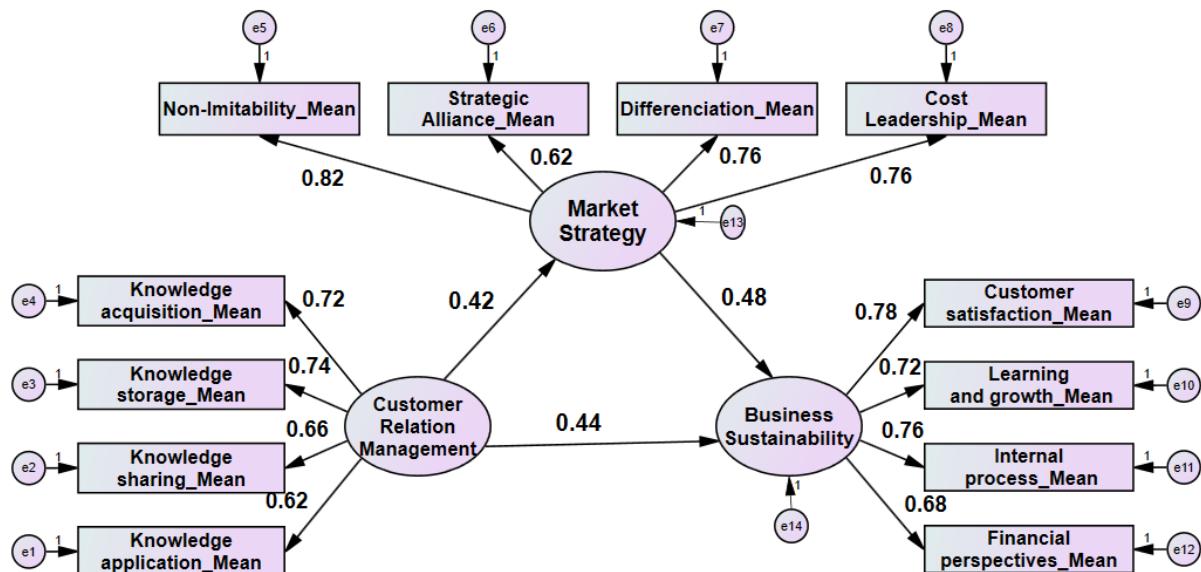


Figure 2: Structure of Equation Model

Source: AMOS result, 2023

The examination of competitive advantage's mediating function in the link among knowledge management and bank performance is depicted in the results in the above figure 2. The SEM paths were used to conduct the evaluation. The model's indices, displayed in the table below, demonstrate how effectively the specification fits the data. The indices' values align with the different levels of reference values. The value of the root means square residual of the approximation, or RMSEA, is smaller (0.06) than the benchmark of 0.08 that was given. The relative fit index (0.93), incremental fit index (0.95), normed fit index (0.93), and comparative fit index (0.97) are all less than what is needed to meet the specification's fit requirements.

Table 5: Model Fit Indices

fit indices for Goodness	SEM outcome	orientation significance
χ^2	2.32	$1 < \chi^2/df < 3$
“Comparative Index for Fitness —CFI”	.968	.9 < -1
“Normed Index- for Fitness —NFI”	.929	.9-1
“Relative Index for Fitness — RFI”	.921	.9-1
“Incremental Index for Fitness — IFI”	.951	.95-1
“Tucker-Lewis Index for Fitness — TLI”	.952	.95-1
“Residual Root Mean Square — RMSEA”	.049	less than 0.08

Source: Result AMOS, 2023

Table 5 provides various model fit indices that assess the goodness of fit of a structural equation model (SEM). These fit indices help evaluate how well the model fits the observed data. Let's review the information provided in the table:

" χ^2 " (Chi-Square) fit index measures the discrepancy between the observed data and the model's predicted data. In this case, the χ^2 value is 2.32. " $1 < \chi^2/\text{df} < 3$ ": This criterion suggests that the ratio of χ^2 to degrees of freedom (df) should be between 1 and 3 for an acceptable fit. The χ^2/df value reported in the table is 2.32, so it's clearly founded within the recommended range. "Comparative Index for Fitness — CFI" fit index assesses the relative improvement in fit of the proposed model compared to a baseline model. In this case, the CFI value is 0.968. The criterion suggests that a CFI value greater than 0.9 indicates an acceptable fit.

"Normed Index for Fitness – NFI" fit index evaluates the relative improvement in fit of the proposed model compared to a null model. The NFI value reported in the table is 0.929. The criterion suggests that an NFI value greater than 0.9 indicates an acceptable fit. "Relative Index for Fitness – RFI" fit index measures the proportionate improvement in fit of the proposed model compared to a baseline model. The RFI value reported in the table is 0.921. The criterion suggests that an RFI value greater than 0.9 indicates an acceptable fit. "Incremental Index for Fitness – IFI" fit index measures the incremental improvement in fit of the proposed model compared to a null model. The IFI value reported in the table is 0.951. The criterion suggests that an IFI value greater than 0.95 indicates an acceptable fit.

"Tucker-Lewis Index for Fitness – TLI" fit index evaluates the incremental improvement in fit of the proposed model compared to a baseline model. The TLI value reported in the table is 0.952. The criterion suggests that a TLI value greater than 0.95 indicates an acceptable fit. "Residual Root Mean Square – RMSEA" fit index measures the average discrepancy between the model's predicted values and the observed data, taking into account the complexity of the model. The RMSEA value reported in the table is 0.049. The criterion suggests that an RMSEA value less than 0.08 indicates an acceptable fit.

Based on the fit indices provided, the model appears to have a reasonably good fit. The CFI, NFI, RFI, IFI, TLI, and RMSEA values all fall within the acceptable range, indicating a good fit between the proposed model and the observed data. However, without additional information or context, it is challenging to provide a more detailed interpretation of the model fit.

Table 6: Knowledge Management effect on Performance of Bank

Determinant	flow	determinant	approximate	Critical Ratio	P	observation
Organization performance	<---	Knowledge management	.363	2.673	.007	sufficient

Source: AMOS result, 2023

Table 6 presents the results of a structural equation model (SEM) that examines the effect of Knowledge Management on the Performance of a Bank. The table provides information about the estimated effect, significance, and observation related to this relationship. Let's go through the information provided:

"Determinant Flow Determinant" column describes the relationship between the two variables being analyzed. In this case, it indicates that Knowledge Management is the determinant, and Organization Performance is the flow determinant. "Approximate" column represents the estimated effect or path coefficient of Knowledge Management on Organization Performance. The estimated

effect is 0.363. "Critical Ratio" column provides the critical ratio or standardized estimate associated with the estimated effect. The critical ratio is calculated by dividing the estimated effect by its standard error. In this case, the critical ratio is 2.673.

"P (Observation)" column represents the p-value associated with the critical ratio, indicating the statistical significance of the estimated effect. In this case, the p-value is 0.007, which is denoted as significant (sufficient). Based on the information provided, the results suggest that Knowledge Management has a significant effect on the Performance of the Bank. The estimated effect (0.363) indicates a positive relationship between Knowledge Management and Organization Performance. The critical ratio (2.673) and the associated p-value (0.007) suggest that this relationship is statistically significant.

Table 7: Mediation of Competitive Advantage

Determinant	Direction	Determinant	approximate (Standardized)	P-Value
Organization Performance	<---	Knowledge management	0.112	***
Organization Performance	<---	Competitive advantage	0.798	***

Source: AMOS result, 2023

Table 7 presents the results of a mediation analysis examining the relationship between Knowledge Management, Competitive Advantage, and Organization Performance. The table provides information about the directions, approximate effects (standardized coefficients), and p-values associated with these relationships. Let's review the information provided:

"Determinant Direction Determinant" column describes the relationship between the variables being analyzed. In this case, it indicates that Organization Performance is the determinant, and both Knowledge Management and Competitive Advantage are determinants. "Approximate (Standardized)" column represents the estimated effect or path coefficient of the determinants on Organization Performance. The approximate effect is standardized, which means it is measured in standard deviation units. "P-Value" column represents the p-value associated with the estimated effect, indicating the statistical significance of the relationship. In this case, the p-values are denoted as significant (***)�.

Based on the information provided, the results suggest the following relationships:

1. Knowledge Management has a positive and significant effect on Organization Performance, with an approximate effect of 0.112 ($p < 0.001$).
2. Competitive Advantage also has a positive and significant effect on Organization Performance, with an approximate effect of 0.798 ($p < 0.001$).

These results indicate that both Knowledge Management and Competitive Advantage have direct effects on the performance of the organization. However, it is clear that Competitive Advantage fully mediates the relationship between Knowledge Management and Organization Performance as there are additional indirect effects or pathways at play.

5. DISCUSSION

This investigation uses competitive advantage as a mediator variable to examine how knowledge management techniques affect performance. The results presented in Table 6 indicate that there is a significant positive effect of Knowledge Management on the Performance of the Bank. The

estimated effect of 0.363 suggests that an increase in Knowledge Management is associated with an improvement in Bank Performance. This finding is supported by a critical ratio of 2.673, which exceeds the threshold for statistical significance.

The significant effect of Knowledge Management on Bank Performance suggests that effectively managing and leveraging knowledge within the bank can positively impact its overall performance. Knowledge Management involves activities such as capturing, organizing, sharing, and utilizing knowledge within an organization. By doing so, banks can enhance their decision-making processes, innovation capabilities, customer service, and operational efficiency, among other aspects.

These findings have important implications for bank management and practitioners. They highlight the importance of investing in knowledge management initiatives to drive performance improvements. Banks can consider implementing systems and processes that facilitate the collection, codification, and dissemination of knowledge across the organization. This may involve the use of technology platforms, knowledge-sharing platforms, training programs, and fostering a culture that values and encourages knowledge sharing.

Furthermore, the significant effect of Knowledge Management on Bank Performance suggests that organizations should prioritize the development of knowledge management strategies and allocate resources towards their implementation. By doing so, banks can enhance their ability to adapt to changing market conditions, gain a competitive edge, and improve overall organizational performance.

It is worth noting that these results are based on data from the year 2023 and may be subject to specific contextual factors or limitations. Further research is needed to validate and generalize these findings across different banks and time periods. Additionally, future studies could explore potential mechanisms or factors that mediate or moderate the relationship between Knowledge Management and Bank Performance to gain a deeper understanding of the underlying dynamics.

In conclusion, the findings presented in Table 6 highlight the significant positive effect of Knowledge Management on Bank Performance. These results underscore the importance of effectively managing knowledge within banks and provide valuable insights for bank management to enhance their performance through strategic investments in knowledge management initiatives.

6. CONCLUSION AND RECOMMENDATIONS

In conclusion, the results presented in Tables 6 and 7 provide valuable insights into the relationship between Knowledge Management, Competitive Advantage, and Organization Performance. The findings suggest that Knowledge Management has a significant positive effect on both Bank Performance and Competitive Advantage. This highlights the importance of effectively managing and leveraging knowledge within banks to drive performance improvements and gain a competitive edge. Additionally, the results indicate that Competitive Advantage also has a significant positive effect on Bank Performance, further emphasizing the value of developing and maintaining a competitive edge in the banking industry.

Based on these findings, the following recommendations can be made:

1. **Invest in Knowledge Management:** Banks should prioritize the development and implementation of robust Knowledge Management strategies. This may involve establishing systems and processes to capture, organize, share, and utilize knowledge

effectively within the organization. It is also important to foster a culture that values and encourages knowledge sharing and learning.

2. Enhance Competitive Advantage: Banks should focus on identifying and developing their unique competitive advantages. This may involve conducting market research, analyzing customer needs, and leveraging technological advancements. By differentiating themselves from competitors, banks can attract and retain customers, increase market share, and ultimately improve their performance.
3. Foster Collaboration and Learning: Encourage collaboration and knowledge sharing among employees within the bank. This can be achieved through regular team meetings, cross-functional projects, and knowledge-sharing platforms. Promote a learning culture where employees are encouraged to continuously update their skills and knowledge through training programs and professional development opportunities.
4. Monitor Performance Metrics: Continuously monitor and evaluate performance metrics related to Knowledge Management, Competitive Advantage, and overall Bank Performance. This will help identify areas for improvement and inform decision-making processes. Regularly review and update the strategies and initiatives in place based on performance outcomes and feedback.
5. Stay Agile and Adapt to Change: In the rapidly evolving banking industry, it is crucial for banks to remain agile and adaptable. Keep abreast of market trends, technological advancements, and changes in customer preferences. Continuously assess and adjust strategies and processes to stay competitive and meet the evolving needs of customers.
6. Conduct Further Research: While the findings from this study provide valuable insights, further research is encouraged to validate and generalize these findings across different banks and time periods. Additionally, future studies can explore potential mediating or moderating factors that may influence the relationship between Knowledge Management, Competitive Advantage, and Bank Performance.

By implementing these recommendations, banks can improve their performance, enhance their competitive advantage, and position themselves for long-term success in the banking industry.

Recognition of Potential Conflicts of Interest

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REFERENCES

- 1) Adula, M., Kant, S., & Ayenew Birbirsa, Z. (2023). Systematic Literature Review on Human Resource Management Effect on Organization Performance. *Annals of Human Resource Management Research*, 2(2), 131–146. <https://doi.org/10.35912/ahrmr.v2i2.1418>
- 2) Arsawan, I. W. E., Koval, V., Rajiani, I., Rustiarini, N. W., Supartha, W. G., & Suryantini, N. P. S. (2022). Leveraging knowledge sharing and innovation culture into SMEs sustainable competitive advantage. *International journal of productivity and performance management*, 71(2), 405-428.
- 3) Asefa K., & Kant S. (2022). Transactional Academic Leadership Effect on Employee's Engagement: the Mediating Impact of Extrinsic Motivation. *Partners Universal International Research Journal*, 1(4), 54–62. <https://doi.org/10.5281/zenodo.7422224>

- 4) Berwal, P., Dhatterwal, J. S., Kaswan, K. S., & Kant, S. (2022). Computer Applications in Engineering and Management. CRC Press. <https://doi.org/10.1201/9781003211938>
- 5) Demir, A., Budur, T., Omer, H. M., & Heshmati, A. (2023). Links among knowledge management and organisational sustainability: does the ISO 9001 certification have an effect?. *Knowledge Management Research & Practice*, 21(1), 183-196.
- 6) Deng, H., Duan, S. X., & Wibowo, S. (2023). Digital technology driven knowledge sharing for job performance. *Journal of Knowledge Management*, 27(2), 404-425.
- 7) Dereso, C.W., Kant, S., Muthuraman, M., Tufa, G. (2023). Effect of Point of Service on Health Department Student's Creativity in Comprehensive Universities of Ethiopia: Moderating Role of Public-Private Partnership and Mediating Role of Work Place Learning. In: Jain, S., Groppe, S., Mihindukulasooriya, N. (eds) Proceedings of the International Health Informatics Conference. Lecture Notes in Electrical Engineering, vol 990. Springer, Singapore. https://doi.org/10.1007/978-981-19-9090-8_13
- 8) Di Vaio, A., Palladino, R., Pezzi, A., & Kalisz, D. E. (2021). The role of digital innovation in knowledge management systems: A systematic literature review. *Journal of business research*, 123, 220-231.
- 9) Ferreira, J., Mueller, J., & Papa, A. (2020). Strategic knowledge management: theory, practice and future challenges. *Journal of knowledge management*, 24(2), 121-126.
- 10) Fikadu, G., Kant, S., & Adula, M. (2023). Halal Entrepreneurialism effect on Halal Food Industry Future in Ethiopia: Mediation role of Risk Propensity and Self Efficacy. *Journal of Halal Science, Industry, and Business*, 1(1), 15–25. Retrieved from <https://journals.researchsynergypress.com/index.php/jhasib/article/view/1541>
- 11) Fikadu, G., Kebede, K., & Kant, S. (2023). Entrepreneurship Orientation to Nurture the Halal Food Industry Future in Ethiopia. *Journal of Islamic Economic and Business Research*, 3(1). <https://doi.org/10.18196/jiebr.v3i1.99>
- 12) Ganguly, A., Talukdar, A., & Chatterjee, D. (2019). Evaluating the role of social capital, tacit knowledge sharing, knowledge quality and reciprocity in determining innovation capability of an organization. *Journal of knowledge management*, 23(6), 1105-1135.
- 13) Garuma .G & Kant S. (2023). Employee Engagement in Ethiopia as a Result of Corporate Ethos. *Partners Universal International Research Journal*, 2(2), 190–201. <https://doi.org/10.5281/zenodo.8046313>
- 14) Gobena, A. E., & Kant, S. (2022). Assessing the Effect of Endogenous Culture, Local Resources, Eco-Friendly Environment and Modern Strategy Development on Entrepreneurial Development. *Journal of Entrepreneurship, Management, and Innovation*, 4(1), 118-135. <https://doi.org/10.52633/jemi.v4i1.153>
- 15) Kant S., Belay B., & Dabaso A.. (2022). Coffee Logistics Operation Knowledge Effect on Cooperative Associations Functionalism in Ethiopia with Mediation of Cybernetics and Local People Knowledge Base. *Journal of Production, Operations Management and Economics (JPOME)* ISSN 2799-1008, 3(01), 21–33. <https://doi.org/10.55529/jpome.31.21.33>
- 16) Mahdi, O. R., Nassar, I. A., & Almsafir, M. K. (2019). Knowledge management processes and sustainable competitive advantage: An empirical examination in private universities. *Journal of business research*, 94, 320-334.
- 17) Mansur, D. M. (2022). Digital-based SME Innovation Development Strategy: Marketing, Entrepreneurship Insight and Knowledge Management. *Golden Ratio of Mapping Idea and Literature Format*, 2(1), 65-84.
- 18) Negeri, D. D. ., Wakjira, G. G. ., & Kant, S. . (2023). Is Strategic Leadership having a mediating role in Ethiopia's SMEs sector when it comes to Entrepreneurial Skill and

Motivation? A Multivariate Investigation. *IRASD Journal of Management*, 5(2), 74–86. <https://doi.org/10.52131/jom.2023.0502.0108>

19) Nezafati, N., Razaghi, S., Moradi, H., Shokouhyar, S., & Jafari, S. (2023). Promoting knowledge sharing performance in a knowledge management system: do knowledge workers' behavior patterns matter?. *VINE Journal of Information and Knowledge Management Systems*, 53(4), 637-662.

20) Ogutu, H., Adol, G. F. C., Bujdosó, Z., Andrea, B., Fekete-Farkas, M., & Dávid, L. D. (2023). Theoretical nexus of knowledge management and tourism business enterprise competitiveness: An integrated overview. *Sustainability*, 15(3), 1948.

21) Panigrahi et al., "En-MinWhale: An ensemble approach based on MRMR and Whale optimization for Cancer diagnosis," in *IEEE Access*, doi: 10.1109/ACCESS.2023.3318261.

22) Panigrahi, A. K. Nayak, R. Paul, B. Sahu and S. Kant, "CTB-PKI: Clustering and Trust Enabled Blockchain Based PKI System for Efficient Communication in P2P Network," in *IEEE Access*, vol. 10, pp. 124277-124290, 2022, doi: 10.1109/ACCESS.2022.3222807

23) Sahoo, S., Kumar, A., & Upadhyay, A. (2023). How do green knowledge management and green technology innovation impact corporate environmental performance? Understanding the role of green knowledge acquisition. *Business Strategy and the Environment*, 32(1), 551-569.

24) Santoro, G., Thrassou, A., Bresciani, S., & Del Giudice, M. (2019). Do knowledge management and dynamic capabilities affect ambidextrous entrepreneurial intensity and firms' performance?. *IEEE Transactions on Engineering Management*, 68(2), 378-386.

25) Shea, T., Usman, S. A., Arivalagan, S., & Parayitam, S. (2023). "Knowledge management practices" as moderator in the relationship among organizational culture and performance in information technology companies in India. *VINE Journal of Information and Knowledge Management Systems*, 53(4), 719-747.

26) Wakjira G.G & Kant S. (2022). Significance Of Market Orientation On Business Performance With Mediating Role of Employee And Customer Satisfaction In Ethiopia Banks. *Partners Universal International Research Journal*, 1(4), 118–125. <https://doi.org/10.5281/zenodo.7495221>

27) Yadete F.D., & Kant, S. (2023). Neuro-Marketing in Understanding Consumer Behavior: Systematic Literature Review. *Journal of Social Sciences and Management Studies*, 2(2), 1–12. <https://doi.org/10.56556/jssms.v2i2.483>

28) Yadete F.D., Kant S., & Kero C.A. (2023). Meta-Analysis of Marketing Innovation on Firm's Performance of Small & Medium Enterprises With the Moderating Effect of Government Support Program: In Case of Selected Sub-cities of Addis Ababa, Ethiopia. *Partners Universal International Innovation Journal*, 1(2), 127–140. <https://doi.org/10.5281/zenodo.7857128>