

INFORMATION TECHNOLOGY AND ITS IMPACT ON THE QUALITY OF STRATEGIC DECISIONS THROUGH KNOWLEDGE MANAGEMENT IN BANKING INDUSTRY

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Abstract

This study aimed to examine the impact of information technology on the quality of strategic decisions through knowledge management in Yemeni banks. The study used a descriptive analytical approach, and for data collection, a questionnaire was designed for the study sample, which consisted of all senior management employees in the banks. The study sample included 385 questionnaires, and 310 valid questionnaires were retrieved for the analysis. The structural modeling and reflective modeling were used to construct the study model. The study found a high level of information technology practice, the quality of strategic decisions, and knowledge management of Yemeni banks.

Keywords: Information Technology, Quality of Strategic Decisions, Knowledge Management.

1. INTRODUCTION

The world is witnessing important changes in which information technology is the main tool and influencing factor in the environment in which business organizations operate. The pace of technological change in production has increased significantly over the past two decades, and the information revolution and information technology enable innovations and improvements in various sectors. This new environment has forced organizations to transition from their traditional forms to formats that are aligned with global information trends in terms of structure, communication, use, and retrieval. This has made information technology an essential means for modern business organizations to stay competitive. The world has entered an era with no boundaries, where information technology plays a pivotal role and has become a hallmark of this age (Bouakal, 2016).

The adoption of developments in information technology by Yemeni banks and the optimal utilization of their capabilities, along with training employees to use them for the quality of strategic decisions, can enable these banks to achieve excellence, continuous development, and diversity. Moreover, it can improve the efficiency of the organization by leveraging the capabilities of the banks, achieving the lowest possible operating costs, and maintaining a high level of required quality. Additionally, it can enhance their effectiveness in achieving their primary objectives, such as increasing bank profits and benefiting society.

One of the problems that organizations face regarding knowledge management is the scarcity of information or the difficulty of accessing it, especially from important sources like libraries, reports, encyclopedias, and archives, which are the most significant sources for obtaining information. However, with the development of management, organizations, technological advancements, the information revolution, the increasing number of employees, the diversity of services, and the pursuit of achieving various goals, the problem has shifted to choosing the appropriate and correct information from the vast amount of references and documents, especially on

the international Internet information network. Accessing this information has become essential for individual and organizational success. Knowledge management has become a significant field to help individuals and organizations innovate, excel, and elevate the level of administrative work in organizations (Mahyoub, 2019).

Yemeni banks are among the most important investment institutions in financial and business markets. They have become vital to the economic cycle, providing added value. The development of this sector will only come through the quality of strategic decisions through the optimal use of information technology and knowledge management. Banks play an effective role in supporting the national economy, and optimal investment will only be achieved through fast and advanced management in their performance. This study will explore the impact of information technology and knowledge management on the quality of strategic decisions of Yemeni banks, helping them achieve success and excellence in their endeavors.

The quality of strategic decisions for contemporary business organizations necessitates a focus on various modern factors that are essential components of organizational performance for achieving optimal investment in their resources and desired objectives. The use of old methods and techniques, for example, in an era of progress, competition, and globalization, does not lead to the quality of strategic decisions for contemporary business organizations. Therefore, modern organizations, such as Yemeni banks, must search for modern means and make optimal use of them to enhance their organizational performance. These banks need to excel in achieving their goals efficiently and effectively in the face of intense competition and rapid changes in today's world.

Bello, Emmanuel, and Busari (2013) emphasized the importance of focusing on employees' continuous use of information technology to accomplish tasks effectively and efficiently. The level of readiness for using information technology by individuals and organizations depends on technological infrastructure, capacity building, and the extent of information technology adoption and utilization within organizations to achieve their objectives.

Furthermore, knowledge management plays a crucial role in the quality of strategic decisions, as it represents one of the most critical resources in accomplishing tasks. The organized effort to transform information into knowledge that employees can apply, manage, and benefit from results in individuals possessing the right knowledge in the right place and at the right time. Banks nowadays do not just need theoretical knowledge but also require the ability to apply it and manage banks' knowledge effectively.

Based on previous studies, such as the study by Yahia (2017), which found a positive causal relationship between information systems and decision-making processes. And the study by Al-Abssi (2018), which revealed shortcomings in decision-making processes using information systems. Additionally, Al-Mahfadi's study (2019) highlighted the importance and role of information systems in the decision-making process. Despite the significant importance of the quality of strategic decisions in banks, as it leads to their long-term success and sustainability in competitive markets, there are issues related to the bank's external environment, organizational issues within the bank, problems related to the problem-solving context, and issues related to decision-makers in general. Decision-makers often lack experience, awareness,

skills in strategic decision-making, leadership skills, and access to new and updated information.

Some previous studies have focused on measuring the style of decision-making in the strategic decision-making process, such as the studies by Talib (2019), Mukhadum (2020), Yassin (2021), and Ibrahim (2021). However, limited research has addressed measuring the quality of strategic decisions. Therefore, this study focuses on measuring the quality of strategic decisions in the Yemeni context.

The significance of this study lies in measuring the impact of information technology on the quality of strategic decisions through knowledge management of Yemeni banks, within the scope of the study. While most previous studies have focused on sectors like energy, pharmaceuticals, education, industry, and telecommunications, this study will address six modern elements of information technology (human resource skills, hardware and equipment, communication networks, software, databases, and information security) as independent variables. Previous studies have mainly considered the first five elements.

The previous studies addressed variables similar to those in the current study in various settings, such as energy, pharmaceuticals, education, industry, telecommunications, and others. However, there is a scarcity of studies that have addressed these variables in the context of Yemeni banks. The importance of this study lies in the necessity of examining the quality of strategic decisions of Yemeni banks, given the crises that Yemen has experienced in recent years, which require high-quality decision-making.

The research gap is evident in the lack of studies that have investigated the relationship between information technology, knowledge management, and the quality of strategic decisions, particularly within Yemeni banks.

Considering the role of banks in supporting the national economy by providing and facilitating banking services, they need a comprehensive system to support the quality of strategic decisions based on modern technology. This would enable banks to achieve competitive advantages, keep up with developments, and, consequently, identify the problem of the study in the main question:

What is the impact of information technology on the quality of strategic decisions through knowledge management of Yemeni banks?

2. LITERATURE REVIEW

2.1 Information Technology

Al-Hij (2019) examined the role of information technology and its impact on achieving competitive advantage in Islamic banks in Sana'a, Yemen. It also aimed to determine whether there are statistically significant differences in the responses of the study sample regarding the achievement of competitive advantage attributed to the variables of bank size and bank age. Several statistical methods were employed to achieve the study's objectives, including hypothesis testing. The study found several important results, including a strong positive impact of information technology on achieving competitive advantage. The higher the level of information technology, the greater the competitive advantage.

Olanrewaju (2016) investigated the effect of using information technology on the performance of banks, customer satisfaction levels, and their impact on increased profits. The study adopted a descriptive analytical approach and used a survey to collect data from both bank employees and customers in Nigerian banks. A total of 450 questionnaires were distributed, and the study found that information technology had a significant impact on organizational performance and employee satisfaction, leading to increased profits.

The Consultative Council for Applied Research in Britain defines information technology as encompassing scientific, technological, engineering fields, as well as management methods used in information processing and its applications to computers and their interaction with people and machines. It also encompasses social, economic, and cultural aspects (Badr, 2000, 39).

Reix defines it as a set of techniques that enable the input, processing, storage, and transmission of information based on electronic processing principles (Reix, 1995:58).

For the purposes of this study, information technology is defined as the interaction of human resource skills, hardware, equipment, communication networks, software, databases, and information security for processing, storing, retrieving, and providing data to different managerial levels in a timely and appropriate manner.

The study relies on the most commonly used dimensions of Yemeni and Arab environments, as identified in a study by Mahyoub (2019), which includes five dimensions: Hardware and Equipment, Software, Databases, Networks, and the Human Element.

2.2 Quality of Strategic Decisions

Yassin (2021) examined the impact of strategic thinking on strategic decision-making in Tikrit University. The study employed a descriptive analytical approach, using a questionnaire as the primary data collection tool. The study's population consisted of all deans and department heads at the university, totaling 130 individuals. The survey was distributed using a non-random purposive sampling method, with 93 valid responses for analysis. The study relied on Partial Least Squares Structural Equation Modeling (PLS-SEM) for data analysis and found that strategic thinking significantly contributed to decision-making.

Dakhil (2021) examined the role of top management (the college council) in avoiding pitfalls in strategic planning, including commitment pitfalls, change pitfalls, and policy pitfalls, in achieving effective strategic decisions such as decision appropriateness, acceptance, and quality in private universities and colleges in the Middle Euphrates region. The study employed a descriptive analytical approach and used a questionnaire as the primary data collection tool. The sample size was 146 respondents. The study used SPSS for data analysis and found a statistically significant relationship between avoiding strategic planning pitfalls and the effectiveness of strategic decisions.

Quality focuses on the outcomes and outputs of strategic decisions, achieving success in operations by doing the right things efficiently and effectively. This entails understanding the various cultures (values, beliefs, habits, and behavioral patterns) of the members, combining objective and subjective thinking, balancing analytical thinking and intuition, focusing on what matters most, and providing only relevant information and analysis for specific problem-solving (Saeed, 2018).

Several indicators measure the quality of strategic decisions, including effectiveness, appropriateness, acceptance, ease of implementation, understanding of external and internal environmental factors, and knowing when to change decisions. The decision-making process should be logical, coherent, clear, flexible, and information should be relevant to the problem at hand (Saeed, 2018).

For the purposes of this study, quality of strategic decisions is defined as the manager's competence and ability to obtain the information necessary to solve problems and collect it in a timely manner, taking into account the analysis of the bank's internal and external environments, as well as the manager's possession of sufficient experience with all aspects of the problem and its solution when making the strategic decision.

This study adopted commonly used dimensions of Yemeni and Arab environments as identified in a study by (Saeed, 2018), which include three dimensions: Decision Quality, Decision Appropriateness, and Decision Acceptance.

2.3 Knowledge Management

Koohang et al. (2017) conducted a study aimed to build a research model to investigate the impact of leadership on trust, knowledge management, and organizational performance.

The research employed a descriptive analytical approach, designed a questionnaire for data collection, and conducted the study in nine regions of the United States.

The topic of knowledge management is considered one of the important subjects that researchers seek to analyze in detail to enrich their topics and make use of the results of their studies. This, in turn, helps in building the intellectual capital of organizations, generating, storing, transferring, applying, and disseminating knowledge to achieve their objectives.

Shamizanjani & Nouri (2013, 472) defined knowledge management as "a continuous and organized process, whether formal or informal, that involves creating and acquiring information, sharing it with others, evaluating it, selecting the appropriate information, archiving it, storing it, and then applying it in practice while working. This process includes the continuous development and appropriate use of knowledge."

For the purposes of this study, knowledge management is defined as a set of interrelated and sequential activities that help banks acquire, generate, obtain, store, apply, and disseminate knowledge.

It also involves transforming knowledge into the bank's intellectual property and protecting it to maximize its benefits, ultimately contributing to the bank's objectives.

The study relies on the most commonly used dimensions of Yemeni and Arab environments, as identified in a study by Mahdi (2021), which includes four dimensions: Knowledge Generation, Knowledge Storage, Knowledge Distribution.

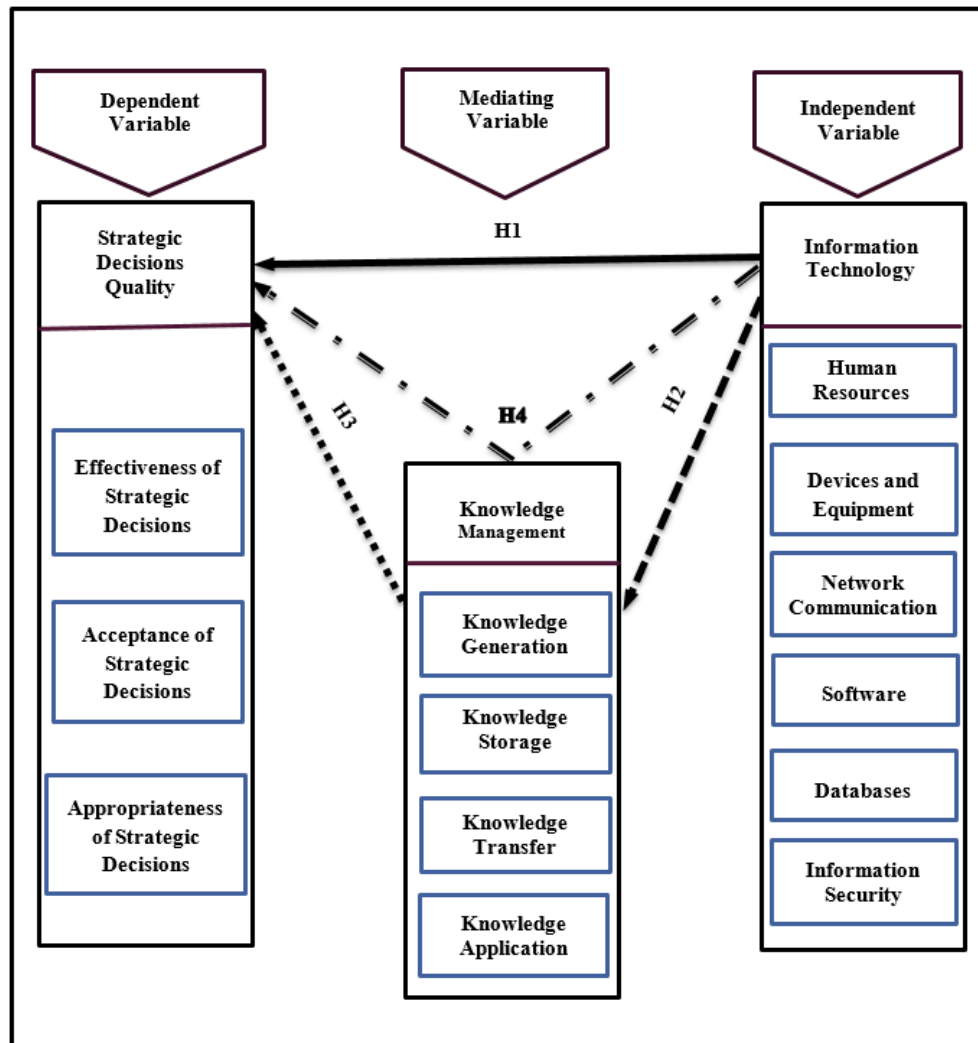


Figure (1): The Conceptual Framework

Based on the above discussion and the proposed research framework, the following hypotheses were examined:

1. There is a significant impact of information technology on the quality of strategic decisions.
2. There is a significant impact of information technology on knowledge management.
3. There is a significant impact of knowledge management on the quality of strategic decisions.
4. There is a significant impact of information technology on the quality of strategic decisions through knowledge management.

3. METHODS

The primary sources of data were collected from the study's sample through questionnaires. The study targeted Yemeni banks represented by the general departments, totaling 14 banks. Four banks were excluded from the study, leaving a study population of ten (10) banks. The sample size for the study was 310 individuals

from the administrative leadership of Yemeni banks. A total of 385 questionnaires were distributed to account for the possibility of some questionnaires not being returned. This was done to increase the percentage of returned questionnaires from the study sample in the ten banks. The number of retrieved questionnaires was 310, and after examination, the number of questionnaires valid for analysis was 310, representing a high percentage (80.5%) of the total study sample.

The questionnaire items were presented in their initial format, which initially consisted of (56) items, to a number of academic staff. In addition to department heads at the Yemeni banks, totaling (16) experts to benefit from their expertise in their respective fields and to ensure the clarity and validity of the questionnaire items. The questionnaire was modified according to the comments and suggestions provided by the reviewers, making the questionnaire more accurate and objective for measuring what it was designed to measure. The final questionnaire consisted of (52) items.

Majority of the study sample consists of males (76.1%), while 23.9% are females. This indicates that the majority of the study sample in Yemeni banks are males, which may be attributed to the relatively recent inclusion of women in various positions within Yemeni banks. This aligns with the societal and cultural norms that only allowed women to work in such positions relatively recently.

It is evident that 14.5% of the study sample is less than 30 years old, 51% fall in the age group between 30 and less than 40 years, 30.6% are in the age group between 40 and less than 50 years, and 3.9% are 50 years old and above. The majority of the study sample consists of individuals aged 30 to less than 40 years, suggesting that banks prefer to employ young, energetic, and active employees for efficient banking services. Following them are individuals aged 40 to less than 50 years, as they are a qualified age group with high levels of experience and skills. Lastly, the age group of 50 years and above, most of whom hold senior managerial positions.

It is evident that 3.9% of the study sample has education levels below high school, 4.5% have completed a diploma after high school, 72.9% have a bachelor's degree, 17.1% have a master's degree, and 1.6% hold a Ph.D. This shows that the majority of the study sample consists of individuals with bachelor's degrees, which is the appropriate educational level for positions in private institutions like banks. It indicates that banks prioritize hiring individuals with the appropriate educational qualifications capable of managing banking operations efficiently. This, in turn, enhances their organizational performance.

It is evident that 1.3% of the study sample holds the position of Deputy General Manager, 33.7% work as Department Heads, 4.3% work as Deputy Department Managers or Operations Managers, 27.7% work in other job titles, 24.4% hold the position of Department Managers, and 8.6% work as Deputy Department Heads or Unit Managers. This demonstrates that the study sample includes a diverse range of individuals across various managerial and operational positions in banks, confirming the diversity of data sources collected for the study.

It is evident that 14.8% of the study sample has less than 5 years of service, 25.2% have 5 to 10 years of service, 45.8% have 10 to less than 20 years of service, and 14.2% have more than 20 years of service. The majority of the study sample consists of individuals with 10 to less than 20 years of service, indicating job stability and tenure among employees in banks. Banks also retain highly experienced human resources

with long years of service and advanced skills, capable of assuming responsibilities in their areas of work. This contributes to improved performance and job stability.

4. DATA ANALYSIS

From Table (1), it is evident that there is a high saturation in the study's indicators, as all external saturation values for the indicators (items) were greater than 0.707. This confirms that each dimension explains more than 50% of the variance in its associated indicators.

Table (1) shows results indicating high reliability in the indicators, as all values of Cronbach's Alpha were greater than 0.700 and less than 0.950. The results also demonstrate internal consistency in the dimensions, as all composite reliability values were greater than 0.700 and less than 0.950.

It is also apparent that there is convergent validity between the dimension and the indicators, as all average variance extracted (AVE) values were greater than 0.500. This means that each dimension explains more than or equal to 50% of the variance in the indicators constituting it. The convergent validity of the measurement model is high, which lends credibility and reliability to the study's results.

Table (1): Convergent Validity Indicators for the Information Technology

Dimension	Statement	External Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Human Resources	The bank employs IT specialists.	0.832	0.89	0.89	0.752
	The bank hires system administrators based on competency.	0.889			
	The bank continuously provides training for employees.	0.887			
	Skills and competencies are a competitive advantage for the bank.	0.86			
Devices and Equipment	The bank has an adequate number of computers and devices.	0.909	0.939	0.939	0.846
	The bank uses modern and advanced equipment.	0.932			
	The bank performs regular maintenance of equipment.	0.929			
	The bank has electronic media for data storage.	0.909			
Software	The bank possesses a modern communication network.	0.916	0.922	0.924	0.811
	The communication network enhances work efficiency and control in the bank.	0.931			
	The communication network facilitates communication between the bank and its customers.	0.915			

	There are several communication means within the bank among employees and related departments.	0.838			
Network Communications	The bank uses modern computer software in its operations.	0.927	0.95	0.95	0.876
	The bank regularly updates its software to keep up with software advancements.	0.955			
	The operating systems used in the bank are user-friendly.	0.934			
	The bank has an online website available for exchanging ideas.	0.927			
Databases	The bank has a detailed database of its banking operations, customers, and competitors.	0.875	0.939	0.942	0.846
	The databases used in the bank facilitate access to reports when needed.	0.918			
	The bank's databases are characterized by continuously updating their data.	0.95			
	The bank's databases excel in providing required data quickly.	0.935			
Information Security	The bank is committed to network security to protect information and maintain its confidentiality.	0.913	0.946	0.948	0.86
	The bank provides updated protection software for internal systems.	0.96			
	The bank offers the necessary tools and means to protect data from external risks.	0.946			
	The bank ensures that information security is not in conflict with business execution and its integrity.	0.89			

From Table (2), it is evident that there is a high saturation in the study's indicators, as all external saturation values for the indicators (items) were greater than 0.707. This confirms that each dimension explains more than 50% of the variance in its associated indicators.

Table (2) shows results indicating high reliability in the indicators, as all values of Cronbach's Alpha were greater than 0.700 and less than 0.950. The results also demonstrate internal consistency in the dimensions, as all composite reliability values were greater than 0.700 and less than 0.950.

From Table (2), it is apparent that there is convergent validity between the dimension and the indicators, as all average variance extracted (AVE) values were greater than

0.500. This means that each dimension explains more than or equal to 50% of the variance in the indicators constituting it.

Table (2): Convergent Validity Indicators for the Strategic Decision

Dimension	Statement	External Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Effectiveness of Strategic Decisions	Different management levels in the bank participate in making strategic decisions.	0.827	0.929	0.931	0.827
	Accurate data are used in the bank to solve problems in a timely manner.	0.931			
	Accurate data are collected in the bank when analyzing the internal environment in a timely manner.	0.943			
	Accurate data are collected when analyzing the external environment in a timely manner.	0.931			
Acceptance of Strategic Decisions	Strategic decisions in the bank are accepted by different management levels.	0.869	0.913	0.914	0.793
	There is commitment from all management levels in the bank to implement strategic decisions.	0.885			
	There is mutual trust among different management levels in the bank's strategic decision-making process.	0.924			
	Collective assessment of information helps improve the bank's strategic decision-making process.	0.884			
Appropriateness of Strategic Decisions	Strategic decisions made are suitable for the bank's internal environment.	0.951	0.944	0.947	0.858
	Strategic decisions made are suitable for the bank's external environment.	0.95			
	Sufficient data are available for making strategic decisions for the bank.	0.942			
	The bank makes good strategic decisions in a timely manner.	0.86			

From Table (3), it is evident that there is a high saturation in the study's indicators, as all external saturation values for the indicators (items) were greater than 0.707. This confirms that each dimension explains more than 50% of the variance in its associated indicators.

Table (3) shows results indicating high reliability in the indicators, as all values of Cronbach's Alpha were greater than 0.700 and less than 0.950. The results also demonstrate internal consistency in the dimensions, as all composite reliability values were greater than 0.700 and less than 0.950.

From Table (3), it is apparent that there is convergent validity between the dimension and the indicators, as all average variance extracted (AVE) values were greater than 0.500. This means that each dimension explains more than or equal to 50% of the variance in the indicators constituting it.

Table (3): Convergent Validity Indicators for the Knowledge Management

Dimension	Statement	External Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Knowledge Generation	Knowledge is acquired from the experiences and expertise of colleagues at the bank.	0.842	0.902	0.903	0.773
	The bank provides employees with information sources (libraries, internet, etc.) for knowledge generation.	0.889			
	The bank leverages external competencies and expertise for knowledge generation.	0.917			
	The bank organizes external training courses to generate new knowledge.	0.867			
Knowledge Storage	The bank documents new knowledge acquired for any project it undertakes.	0.908	0.955	0.955	0.882
	The bank implements basic and new knowledge retrieval systems.	0.955			
	Knowledge is stored in a way that facilitates easy access when needed in the bank.	0.944			
	Stored knowledge in the bank is regularly updated.	0.949			
Knowledge Transfer	The bank works on transferring and exchanging knowledge among employees.	0.903	0.916	0.922	0.799
	The bank promotes a culture of encouraging knowledge and expertise exchange among employees.	0.909			
	The bank issues various publications to disseminate knowledge among employees.	0.918			
	Retired employees at the bank share their expertise with colleagues in different departments.	0.844			
Knowledge Application	The bank has a strategic plan for applying knowledge.	0.919	0.933	0.934	0.832
	Employees in the bank work on applying the knowledge they have acquired.	0.883			

	The bank monitors the implementation of new knowledge.	0.943			
	The bank eliminates procedures that hinder employees' application of knowledge.	0.903			

4.1 Descriptive Analysis for Information Technology

4.1.1 Human Resources

Statement (1), which states, "The bank has specialists in the field of information technology," ranks first with an average score of 6.250, a standard deviation of 1.186, and an agreement percentage of 89.29%, indicating a very high rating. On the other hand, Statement (3), which mentions, "The bank provides continuous training for employees," ranks last with an average score of 5.910, a standard deviation of 1.235, and an agreement percentage of 84.43%.

The overall mean for the dimension is 6.017, with a standard deviation of 1.082 and an agreement percentage of 85.96%, indicating a high rating overall. This result confirms that banks have specialized and qualified human resources capable of utilizing the latest technologies in the field of information technology, leading to improved quality of strategic decisions as perceived by the study sample.

4.1.2 Devices and Equipment

Statement (1), which states, "The bank has a sufficient number of computers and devices," ranks first with an average score of 6.190, a standard deviation of 1.240, and an agreement percentage of 88.43%, indicating a very high rating. Statement (2), which mentions, "The devices and equipment used by the bank are modern and advanced," ranks last with an average score of 5.930, a standard deviation of 1.305, and an agreement percentage of 84.71%.

The overall mean for the dimension is 6.032, with a standard deviation of 1.159 and an agreement percentage of 86.18%, indicating a high rating overall. This result confirms that banks possess sufficient and high-specification devices and equipment for use in information technology, contributing to improved quality of strategic decisions as perceived by the study sample. Additionally, the banks show a high level of interest in updating devices and equipment as needed.

4.1.3 Telecommunications Network

Statement (1), which states, "The bank has a modern telecommunications network," ranks first with an average score of 5.970, a standard deviation of 1.292, and an agreement percentage of 85.29%, indicating a high rating. Statement (4), which mentions, "There are several means of communication in the bank among employees and relevant departments," ranks last with an average score of 5.870, a standard deviation of 1.264, and an agreement percentage of 83.86%.

The overall mean for the dimension is 5.935, with a standard deviation of 1.162 and an agreement percentage of 84.78%, indicating a high rating overall. This result confirms that the sampled banks have both internal and external communication networks that facilitate knowledge exchange and service delivery, ultimately leading to improved quality of strategic decisions.

4.1.4 Software

Statement (1), which states, "The bank uses modern computer software in its operations," ranks first with an average score of 5.910, a standard deviation of 1.279, and an agreement percentage of 84.43%, indicating a high rating. Statement (4), which mentions, "The bank has an online website available to everyone for sharing ideas," ranks last with an average score of 5.750, a standard deviation of 1.338, and an agreement percentage of 82.14%. The overall mean for the dimension is 5.842, with a standard deviation of 1.120 and an agreement percentage of 83.46%, indicating a high rating overall. This result confirms that the sampled banks have user-friendly software that facilitates their operations, and they maintain an online presence to engage with stakeholders and share information, contributing to improved quality of strategic decisions.

4.1.5 Databases

Statement (2), which states, "The bank has a detailed database about its banking operations, customers, and competitors," ranks first with an average score of 5.850, a standard deviation of 1.310, and an agreement percentage of 83.57%, indicating a high rating. Statement (4), which mentions, "The bank's databases excel in providing required data quickly," ranks last with an average score of 5.800, a standard deviation of 1.238, and an agreement percentage of 82.86%. The overall mean for the dimension is 5.845, with a standard deviation of 1.136 and an agreement percentage of 83.50%, indicating a high rating overall. This result confirms that the sampled banks have databases containing comprehensive information about their operations, customers, and competitors, which are regularly updated and provide quick access to required data, contributing to improved quality of strategic decisions.

4.1.6 Information Security

Statement (1), which states, "The bank ensures network security to protect information and maintain its confidentiality," ranks first with an average score of 6.180, a standard deviation of 1.223, and an agreement percentage of 88.29%, indicating a very high rating. Statement (4), which mentions, "The bank ensures that information security does not conflict with business execution and its integrity," ranks last with an average score of 5.960, a standard deviation of 1.134, and an agreement percentage of 85.14%. The overall mean for the dimension is 6.100, with a standard deviation of 1.090 and an agreement percentage of 87.14%, indicating a high rating overall. This result confirms that the sampled banks have modern and comprehensive security programs in place to protect their information from internal and external threats, contributing to improved quality of strategic decisions. Additionally, the banks are highly committed to updating the necessary security software to protect their data.

- Information Security ranks first with an average of 6.100, a standard deviation of 1.090, and an agreement percentage of 85.17%. It is rated as "High."
- Software ranks last with an average of 5.842, a standard deviation of 1.120, and an agreement percentage of 83.46%. It is also rated as "High."

The overall results suggest that the banks in the study sample prioritize information security and continually update their security programs to safeguard against internal and external threats. Furthermore, the banks focus on updating devices and equipment to ensure optimal performance and accurate outputs, contributing to organizational improvement and, in turn, enhancing the quality of strategic decisions.

4.2 Descriptive Analysis for Quality of Strategic Decisions

4.2.1 Effectiveness of Strategic Decisions

Statement (3), which states, "Accurate data is gathered in the bank when analyzing the internal environment in a timely manner," ranks first with an average score of 5.560, a standard deviation of 1.180, and an agreement percentage of 79.43%, indicating a high rating. Statement (1), which mentions, "Different management levels in the bank participate in making strategic decisions," ranks last with an average score of 5.320, a standard deviation of 1.414, and an agreement percentage of 76.00%. The overall mean for the dimension is 5.462, with a standard deviation of 1.127 and an agreement percentage of 78.03%, indicating a high rating overall. This result confirms that the sampled banks employ accurate data in a timely manner to solve problems and make strategic decisions, contributing to the improvement in the quality of strategic decisions.

4.2.2 Acceptance of Strategic Decisions

Statement (2), which states, "There is commitment from all management levels in the bank to implement strategic decisions," ranks first with an average score of 5.570, a standard deviation of 1.236, and an agreement percentage of 79.57%, indicating a high rating. Statement (4), which mentions, "Collective assessment of information helps improve the process of making strategic decisions in the bank," ranks last with an average score of 5.510, a standard deviation of 1.376, and an agreement percentage of 78.71%. The overall mean for the dimension is 5.449, with a standard deviation of 1.173 and an agreement percentage of 77.85%, indicating a high rating overall. This result confirms that the sampled banks demonstrate commitment from all management levels to implement strategic decisions and foster mutual trust in the process, ultimately improving the quality of strategic decisions.

4.2.3 Alignment of Strategic Decisions

Statements (1 & 3), which address the suitability of strategic decisions for the bank's internal environment and the availability of sufficient data for making strategic decisions for the bank, rank first with an average of 5.450 and standard deviations of 1.270 and 1.191, respectively. The agreement percentage is 77.86% for both, and they are rated as "High."

Statement (4), which refers to the bank making good strategic decisions in a timely manner, ranks last with an average of 5.360, a standard deviation of 1.326, and an agreement percentage of 76.57%. It is also rated as "High."

Overall, the results indicate that the strategic decisions made by the banks in the study sample are suitable for both internal and external environments. Additionally, there is sufficient data available for making these strategic decisions. This, in turn, contributes to improving the quality of strategic decisions made by the banks.

- Effectiveness of Strategic Decisions ranks first with an average of 5.462, a standard deviation of 1.127, and an agreement percentage of 78.03%. It is rated as "High."
- Alignment of Strategic Decisions ranks last with an average of 5.413, a standard deviation of 1.154, and an agreement percentage of 77.33%. It is also rated as "High."

The overall results indicate that the banks in the study sample prioritize the effectiveness of strategic decisions. This, in turn, contributes to enhancing the quality of strategic decisions.

4.3 Descriptive Analysis for Knowledge Management

4.3.1 Knowledge Generation

Statement (1), which indicates that "Knowledge is acquired from the experiences and expertise of colleagues in the bank," ranked first with a mean of 6.060, a standard deviation of 1.075, and an agreement percentage of 86.57%. Conversely, Statement (3), which mentions that "The bank seeks external competencies and expertise to generate knowledge," ranked last with a mean of 5.630, a standard deviation of 1.310, and an agreement percentage of 80.43%.

The overall average for the dimension was 5.793 with a standard deviation of 1.091 and an agreement percentage of 82.75%, indicating a high rating. These results confirm that knowledge is acquired from colleagues' experiences and expertise within the sample banks and through organizing external training courses to generate new knowledge. Knowledge generation and acquisition rely on human resources, as they are the cornerstone of knowledge management in general and its specific generation, and are relied upon in problem-solving and idea exchange, ultimately leading to an improvement in the quality of strategic decisions.

4.3.2 Knowledge Storage

Statement (1), which states that "The bank documents new knowledge acquired for any project," ranked first with a mean of 5.670, a standard deviation of 1.175, and an agreement percentage of 81.00%. In contrast, Statement (2), which mentions that "The bank implements systems for retrieving basic and new knowledge," ranked last with a mean of 5.570, a standard deviation of 1.225, and an agreement percentage of 79.57%.

The overall average for the dimension was 5.624 with a standard deviation of 1.127 and an agreement percentage of 80.35%, indicating a high rating. These results confirm that the sampled banks document new knowledge acquired for projects and store knowledge in a way that facilitates retrieval when needed by employees, enhancing their skills and expertise in providing banking services to meet customer needs, ultimately improving the quality of strategic decisions.

4.3.3 Knowledge Sharing

Statement (1), which indicates that "The bank works on sharing and disseminating knowledge among employees," ranked first with a mean of 5.600, a standard deviation of 1.204, and an agreement percentage of 80.00%. Conversely, Statement (4), which mentions that "Retired employees at the bank share their experiences with their colleagues in different departments," ranked last with a mean of 5.090, a standard deviation of 1.577, and an agreement percentage of 72.71%. The overall average for the dimension was 5.402 with a standard deviation of 1.203 and an agreement percentage of 77.17%, indicating a high rating. These results confirm that the sampled banks actively engage in knowledge sharing and dissemination among employees, encouraging the exchange of experiences, knowledge, and skills, which enables banks to become learning organizations capable of anticipating and adapting to new developments, ultimately improving the quality of strategic decisions.

4.3.4 Knowledge Application

Statement (2), which states that "Bank employees actively apply the knowledge they have acquired," ranked first with a mean of 5.720, a standard deviation of 1.139, and an agreement percentage of 81.71%. Conversely, Statement (4), which mentions that "The bank eliminates procedures that hinder employees from applying knowledge," ranked last with a mean of 5.410, a standard deviation of 1.283, and an agreement percentage of 77.29%. The overall average for the dimension was 5.569 with a standard deviation of 1.124 and an agreement percentage of 79.55%, indicating a high rating. These results confirm that employees in the sampled banks actively apply the knowledge they have acquired, benefitting the banks in their financial activities and operations, which reflects on the quality of banking services. Moreover, the banks encourage the application of new knowledge among employees, ultimately improving the quality of strategic decisions.

- Knowledge Generation ranks first with a mean of 5.793, a standard deviation of 1.091, and an agreement percentage of 82.75%. It is rated as "High."
- Knowledge Sharing ranks last with an average of 5.402, a standard deviation of 1.203, and an agreement percentage of 77.17%. It is also rated as "High."

The overall results confirm that the sampled banks show a high level of interest in knowledge generation, storage, sharing, and application, ultimately improving the quality of strategic decisions.

4.4 Hypothesis Testing

The structural equation modeling was developed using Partial Least Squares Structural Equation Modeling (PLS SEM) by the statistical economist expert Herman O. A. Wold. It performs the measurement of the structural equation by two processes simultaneously, which are the Principal Component Analysis (PCA) and the ordinary linear regression (Mateos-Aparicio, 2011). It is an alternative to using Structural Equation Modeling (SEM) with AMOS, which focuses on the common variance of statistical parameters, whereas PLS focuses on the total variance of statistical parameters (Hair et al., 2017b). Since 2010, the number of published studies using PLS SEM has significantly increased compared to using the CB SEM system (Hair et al., 2017). PLS SEM has been used in the fields of Human Resource Management (Ringle et al., 2019), Information Systems (Ringle et al., 2012), Organizational Management and International Management (Richter et al., 2015), Operations Management (Peng and Lai, 2012), Marketing Management (Hair et al., 2012b), Account Management (Nitzl, 2016), Strategic Management (Hair et al., 2012a), and Supply Chain Management (Kaufmann and Gaeckler, 2015), as well as Hospitality Management (Ali et al., 2018).

The first hypothesis states: "There is a significant impact of Information Technology on the Strategic Decision Quality."

The path coefficient (Beta) for the main path (Information Technology -> Strategic Decision Quality) is 0.773, indicating a statistically significant effect of Information Technology on the Strategic Decision Quality of Yemeni banks in the study sample. This means that, assuming the neutralization of other variables, an increase in Information Technology by one unit will contribute to achieving 77.3% of the properties of the Strategic Decision Quality for Yemeni banks in the study sample. Additionally,

the t-value is 23.808, and the significance level is less than 0.05, which confirms the acceptance of the first hypothesis.

The second hypothesis states: "There is a significant impact of Information Technology on Knowledge Management."

The path coefficient (Beta) for the main path (Information Technology -> Knowledge Management) is 0.794, indicating a statistically significant effect of Information Technology on Knowledge Management in Yemeni banks in the study sample. This means that, assuming the neutralization of other variables, an increase in Information Technology by one unit will contribute to achieving 79.4% of the properties of Knowledge Management for Yemeni banks in the study sample. Additionally, the t-value is 27.639, and the significance level is less than 0.05, confirming the acceptance of the second hypothesis.

The third hypothesis states: "There is a significant impact of Knowledge Management on Strategic Decision Quality."

The path coefficient (Beta) for the main path (Knowledge Management -> Strategic Decision Quality) is 0.806, indicating a statistically significant effect of Knowledge Management on Strategic Decision Quality in Yemeni banks in the study sample. This means that, assuming the neutralization of other variables, an increase in Knowledge Management by one unit will contribute to achieving 80.6% of the properties of Strategic Decision Quality for Yemeni banks in the study sample. Additionally, the t-value is 28.277, and the significance level is less than 0.05, confirming the acceptance of the third hypothesis.

The fourth hypothesis states that "there is a significant impact of information technology on the quality of strategic decisions through knowledge management."

There is a mediating effect of knowledge management on the relationship between information technology and the quality of strategic decisions. The value of Beta is (0.433), and the value of t (7.806) is statistically significant at a level less than 0.05. Therefore, we accept the fourth hypothesis.

There are statistically significant differences in the responses of the study sample in the average quality of strategic decisions attributed to the gender variable. The t-value is statistically significant at a level less than 0.05, with differences favoring males over females. Cultural norms and organizational cultures can influence decision-making opportunities and leadership roles for men and women. If there are disparities between genders in leadership positions or access to decision-making roles, it may affect the perceived quality of strategic decisions for each gender. There are no statistically significant differences in the responses of the study sample in the average quality of strategic decisions attributed to the age variable. The F-value is not statistically significant at a level less than 0.05. There are no statistically significant differences in the responses of the study sample in the average quality of strategic decisions attributed to the qualification variable. The F-value is not statistically significant at a level less than 0.05. There are statistically significant differences in the responses of the study sample regarding the average quality of strategic decisions attributed to the job title variable. The F-value is statistically significant at a level less than 0.05. There are differences in favor of the Department Manager job title over the Section Head job title and other job titles. The mean difference is statistically significant at a level less

than 0.05. Additionally, there are differences in favor of the Deputy Department Manager job title over the Section Head job title and other job titles. The mean difference is statistically significant at a level less than 0.05. It is noted that differences favor the Department Manager and Deputy Department Manager job titles, as they are responsible for preparing reports and data that enable decision-makers to make effective decisions as needed. There are statistically significant differences in the responses of the study sample regarding the quality of strategic decisions attributed to the variable "years of service," as the F-value is statistically significant at a significance level of less than 0.05. To determine in favor of whom the differences lie, the Tukey post hoc test for comparisons was used.

Differences are in favor of those with less than 5 years of service compared to those with more than 20 years of service and in favor of those with 10 to 20 years of service compared to those with more than 20 years of service, as the mean difference values are statistically significant at a significance level of less than 0.05. It is noteworthy that differences favor those with fewer years of service because they have the ambition to acquire more qualifications that enable them to make good decisions. On the other hand, those with more years of service possess accumulated knowledge and high expertise that make decision-making easier when needed.

5. DISCUSSION

Yemeni banks have an interest in providing information technology due to its role in the quality of strategic decisions. The highest dimensions of interest were information security, hardware and equipment, followed by a skilled workforce capable of dealing with technology, then communication networks, databases, and software.

- Yemeni banks in the study sample are interested in a skilled workforce capable of dealing with technology since it has the most significant impact on the quality of strategic decisions. Any technological infrastructure is not effectively utilized without a skilled and trained workforce.
- Employees in Yemeni banks in the study sample recognize the significant benefits of quality strategic decisions in terms of achieving higher achievements and providing opportunities for advanced work.
- Yemeni banks in the study sample are interested in the quality of strategic decisions, although the levels of application of its dimensions vary.
- The level of practice of the dimensions of quality strategic decisions in Yemeni banks varies. The effectiveness of strategic decisions was the highest-practiced dimension, followed by the acceptance of strategic decisions, and finally, the alignment of strategic decisions.
- The level of practice of the dimensions of knowledge management in Yemeni banks varies. Knowledge generation was the highest-practiced dimension, followed by knowledge storage, then knowledge application, and finally, knowledge transfer.
- Yemeni banks in the study sample need to pay more attention to knowledge transfer from experienced individuals to new employees and not be satisfied with generating, storing, and applying available knowledge because knowledge transfer is a fundamental process in preserving knowledge from being lost, especially from experienced individuals who have reached retirement age.

- Improving the quality of strategic decisions in Yemeni banks is attributed to the high availability of information technology.

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