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THE IMPACT OF FINANCIAL INFORMATION SYSTEMS ON KNOWLEDGE ACCUMULATION: A FIELD STUDY ON EMPLOYEE PERSPECTIVES IN THE BANKING SECTOR (GULF COMMERCIAL, INTERNATIONAL DEVELOPMENT)

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A R T I C L E I N F O.

Keywords: Banking Information Systems, Knowledge Accumulation.

Abstract:

Financial information systems are of utmost importance in facilitating a wide range of financial transactions within the banking sector. Hence, the significance of these institutions is paramount, particularly in relation to the augmentation of knowledge acquisition. This study centers on the examination and clarification of the philosophical and theoretical consequences associated with these variables. It is structured into two primary sections.

The initial section of the paper delineates the research technique and establishes a theoretical foundation for the research variables and their respective dimensions. The subsequent section of the paper outlines a pragmatic framework for the research hypotheses, shows its findings, and offers recommendations based on the results. The research sample consists of a total of 112 participants, who are workers from two banks, namely Gulf Commercial Bank and International Development Bank.

The study employed a descriptive analytical methodology and employed a questionnaire as a means of measurement. The data analysis was performed utilizing the statistical software SPSS. This involved the examination of research hypotheses pertaining to the influence and association among the study variables, employing statistical procedures such as multiple regression and correlation coefficients.

The research findings highlight the notable theoretical and empirical outcomes, which demonstrate a robust and statistically significant relationship between the integration of financial

information systems and the accrual of knowledge among the selected research participants. The aforementioned association is substantiated by the correlation coefficient values observed at the global level.

The paper presents a number of recommendations based on the research findings, one of which emphasizes the importance for banking organizations to conduct comprehensive investigations into all facets of financial information systems. The achievement of this objective necessitates conducting financial and realistic analyses to assess the capacity of banks to adopt and capitalize on the outcomes, both presently and in the future.

Introduction

Banking institutions are presently functioning within a dynamic, intricate, and ever evolving milieu. In the current landscape, the ability to thrive and expand is contingent upon the acquisition of distinctive expertise and information that is not readily duplicable or imitated in light of ongoing technological progress, the revolution in information and communication technology, and intensified competition. The aforementioned developments have significantly augmented the significance of information systems in a broad sense, with a particular emphasis on financial information systems within the banking sector.

Financial information systems have emerged as indispensable and strategic assets that institutions depend on to obtain expertise and knowledge. These platforms offer extensive access to a wide range of data and information pertaining to the operations and financial practices of the institution. As a result, firms are more motivated to implement efficient and appropriate financial information systems in order to enhance their knowledge acquisition and attain a competitive advantage.

In light of these circumstances, the theoretical framework of this research addresses contemporary topics that play a significant and prominent role in sustaining the financial performance of Iraqi banks in general and specifically the Gulf Commercial Bank and International Development Bank, considering the challenges they face. The central focus of this research revolves around examining the extent to which financial information systems contribute to knowledge accumulation.

Given the need for studies and research of this nature in our environment, this research takes on the responsibility of testing these variables within a crucial and vital sector. It employs these elements within a logical and practical context to serve as a model and starting point for a field study on the opinions of leaders and employees within the sample of the research. These individuals are distinguished by their extensive expertise and experience in the Gulf Commercial Bank and International Development Bank.

Chapter One: Research Methodology

First: Research Problem

It is crucial for banking organizations to acquire knowledge and competence in order to effectively adapt to the ongoing changes they experience. Hence, it is important for these establishments to consistently augment the knowledge and proficiency of their staff members. The accomplishment of this objective is facilitated by financial information systems, which assume a critical function in the aggregation, arrangement, and distribution of financial data, while also enhancing the efficiency of financial decision-making processes. This facilitates the organization's development of the requisite knowledge to effectively address diverse challenges and adapt to changes.

Banking institutions, like the Gulf Commercial Bank and International Development Bank, encounter

difficulties in acquiring the requisite experience and understanding to effectively address the evolving banking landscape in Iraq. The aforementioned issues can be alleviated by employing efficient strategies for the development of financial information systems.

Therefore, through this research, we aim to address this issue by relying on financial information systems that focus on system and information quality, security, and user satisfaction. This, in turn, reflects an enhancement of skills and capabilities and the achievement of knowledge accumulation. Thus, the problem of this research lies in identifying the role of banking information systems in promoting knowledge accumulation for a group of employees in the Gulf Commercial Bank and International Development Bank. Therefore, posing and reviewing the following questions can help clarify the problem's contents:

1. Is there a statistically significant positive correlation between financial information systems and knowledge accumulation in the researched banking institutions?
2. Does financial information systems have a statistically significant positive impact on enhancing knowledge accumulation in the researched banking institutions?

Second: Significance of the Study

1. **Practical Level:** Diagnosing the extent of readiness of the researched banking institutions (Gulf Commercial Bank, International Development Bank) to adopt and use financial information systems accurately and efficiently with the aim of achieving the desired objectives, as well as providing the correct scientific foundations that enable the researched banks to adopt financial information systems and direct them towards enhancing knowledge accumulation.
2. **Theoretical Level:** The importance of the current study stems from the significance of its subject matter. This study represents a fundamental and crucial step in understanding the importance of financial information systems in the Gulf Commercial Bank and International Development Bank and how to leverage them for the purpose of developing the knowledge and skills of the employees (knowledge accumulation) in the researched banks.

Both financial information systems and knowledge accumulation are critical and essential topics that contribute to the achievement of the banks' objectives. The functions carried out by managers and marketers, such as planning, directing, organizing, supervising, and decision-making, are fundamentally reliant on the availability of such knowledge and capabilities. The current study will add to the recommendations made by previous studies for these banks and similar institutions to benefit from.

Third: Study Objectives

The primary aim of this research was to elucidate the role of financial information systems in enhancing knowledge accumulation within the researched banking institutions. There are several subsidiary objectives that can be outlined as follows:

1. Define the concept of financial information systems, its importance, and dimensions for the employees in the researched banking institutions.
2. Define the concept, significance, and objectives of knowledge accumulation, as well as the key dimensions it relies on for the employees in the researched banking institutions.
3. Present a practical framework for the nature of the correlation and impact of financial information systems on enhancing knowledge accumulation in the researched banks (Gulf Commercial Bank, International Development Bank).
4. Assist the researched banks (Gulf Commercial Bank, International Development Bank) in applying the practical framework of the current research variables to determine their inclination to implement these tools and consequently analyze the field reality to reach results related to their

development.

5. Enhance the awareness of the researched banks (Gulf Commercial Bank, International Development Bank) regarding the general content of the assumptions from which the research began and present this relationship with a hypothetical model aimed at field application to obtain hypothesis testing results.
6. Test the feasibility of applying the hypothetical research plan in terms of dimensions and areas related to the research variables.

Fourth: Hypothetical Research Model

The methodological treatment of the research problem, within the framework of its theory and field content, requires the design of a hypothetical research model. This model should indicate the logical relationship between the research variables, expressing proposed solutions to address the research questions raised in the research problem. Furthermore, it should clarify the sub-dimensions of these variables and their effects on Gulf Commercial Bank and International Development Bank, the researched sample, while considering the feasibility of measuring these variables.

The research model is constructed based on independent and dependent variables. Financial information systems are considered independent variables, while knowledge accumulation is a dependent variable. The hypothetical research model can be presented as shown in Figure (1):

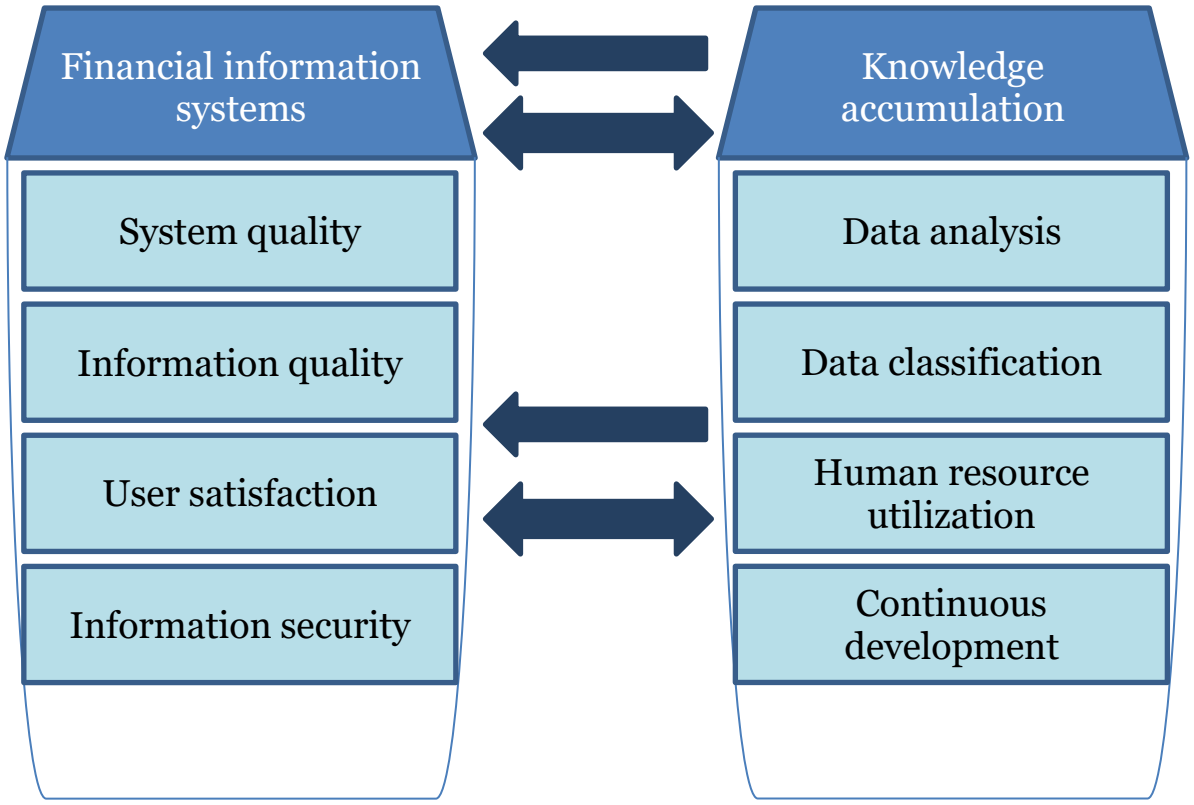

Figure (1) Research Hypothetical Model

Source: Prepared by the researcher.

Fifth: Study Hypotheses

1. The first hypothesis: There is a statistically significant relationship between financial information systems and knowledge accumulation in the studied banks.
2. The second hypothesis: Financial information systems have a statistically significant impact on

enhancing knowledge accumulation in the studied banks.

Sixth: Research Method and Tool

1. **Study Method:** In this study, the researcher employed a field study approach, specifically focusing on conducting interviews with officials from the banks under investigation. The aim was to gain a comprehensive understanding of the problem, analyze it, and subsequently elucidate its various dimensions, variables, and relationships. The researcher sought to go beyond superficial descriptions and acquire a deeper knowledge of the issue at hand. Our study focused on investigating the impact of financial information systems on facilitating the collection of knowledge.
2. **Research Tool (Data Collection Methods):** The research tool refers to the methodology utilized for gathering primary and secondary information and data, with the objective of acquiring secondary material that is pertinent to the theoretical dimension of the research. The research variables in Arabic and foreign scientific sources were examined with the assistance of expert researchers. In order to gather empirical data necessary for testing the research hypotheses, the study primarily relied on the utilization of a "questionnaire" as a means of collecting primary data pertaining to the research variables. This data was then subjected to statistical analysis to facilitate hypothesis testing. Additionally, interviews were conducted with officials from the selected banks in the sample to provide further clarification on the questionnaire items, as needed.

Seventh: Research Tool Testing

1. **Apparent Validity Testing:** Apparent validity was tested by presenting the questionnaire to a panel of experts, consisting of 10 reviewers. Their opinions were generally positive regarding the relevance and suitability of most items in the questionnaire. Some important comments were also noted, emphasizing the need to evaluate and modify or rephrase certain items. This feedback assisted in improving the suitability of these items through appropriate corrections.
2. **Questionnaire Reliability Testing:** In accordance with the need for an efficient and reliable questionnaire, the research included a test of reliability. Reliability ensures that the same or nearly the same results are obtained when the questionnaire is administered multiple times to the same group of individuals under the same conditions. This reflects the consistency in respondents' answers when the same questionnaire is applied repeatedly under the same circumstances.

The researcher assessed the reliability of the questionnaire using Cronbach's alpha test on the entire research sample, and the calculated alpha value was 0.79. This value indicates that the Cronbach's alpha coefficient is relatively high and positive.

Eighth: Research Limitations

1. **Subject Limitations:** The subject limitations were defined by the focus on "financial information systems" and "knowledge accumulation" as the main research subjects.
2. **Spatial Limitations**: The geographical boundaries of the study were confined to the two banks, "Commercial Gulf Bank" and "International Development Bank," on which the study was applied.
3. **Human Limitations:** The study was conducted on a group of employees within the researched banks in Iraq.
4. **Time Limitations:** The temporal boundaries of the study covered the period from May 25, 2020, to December 1, 2020.

Chapter Two: The Theoretical Framework of the Study

Firstly: The Theoretical Background of Financial Information Systems

1. The Concept of Financial Information Systems:

The financial domain is often recognized as a critically important functional area inside a company. Financial management is the function that assumes responsibility for the supervision and control of financial assets, including cash flows, capital, and inventories. Additionally, it entails the process of making financial decisions pertaining to the allocation and procurement of financial resources for the business. The primary objective of these decisions is to optimize returns and enhance the total value for shareholders. This highlights the importance of financial information systems and its essential function in monitoring financial data, facilitating financial decision-making inside the firm, and overseeing cash flows.

Financial information systems have undergone significant advancements, encompassing a range of functions. These functions include the regulation of fund utilization, prediction of financial requirements, generation of diverse reports that elucidate various facets of an organization's financial operations, and provision of information pertaining to the external environment and competitors. Furthermore, these systems aid in the formulation of strategies and policies to surmount competitors and attain a competitive edge.

The significance of such a system is notably apparent within the banking industry, because the principal resource that banks handle is currency, frequently belonging to entities other than themselves. The present circumstances call for an increased level of prudence, circumspection, and supervision in the process of making decisions pertaining to these financial assets (Haleem, 2020: 12-13).

The present body of scholarly inquiry in financial information systems has undergone a transformative process, drawing insights from many fields such as computer science, organizational theory, and cognitive psychology. The primary benefit of this evolutionary process is in the extensive and varied body of literature, which facilitates the examination of multiple interconnections between the technological, organizational, and individual dimensions of governance and decision-making effectiveness. The notion of financial information systems encompasses both the comprehensive elements and the intricate components of an information system (Cem Dener et al., 2011: 29).

A system is commonly characterized as a collection of interrelated units that exhibit integrative interactions, hence constituting system components. The components encompass both tangible elements such as computers, printing machines, communication networks, and paper, as well as intangible elements such as software, relationships, processes, and instructions. These components are interconnected to form a cohesive and integrated system. The aforementioned system operates with the purpose of attaining a particular target or a collection of objectives (Delone & Mclean, 2013: 19).

The financial information system can be characterized as a subsystem inside the larger organizational system. The primary function of this system is to collect and compile financial data and information from both internal and external sources. Subsequently, it processes this data, converting it into meaningful information. The system then presents this information to decision-makers at different levels of management in the form of reports, statistics, or other relevant formats. The purpose of this is to aid decision-makers in making appropriate financial and non-financial decisions (Amani, 2013: 21).

The effectiveness of a financial information system is its ability to achieve its intended objectives, primarily providing financial information to decision-makers. It should be characterized by suitability, accuracy, and reliability, and have a positive impact on decision-makers, contributing to the development of competitive advantages for the organization (Asmahan and Salima, 2018: 2).

Financial information systems (FIS) are integral systems that provide support to managers across different organizational levels and functional domains in the decision-making process. According to

(Jerry Cater et al., 2015: 42), financial analysts play a crucial role in aiding managers in the execution of their responsibilities. They provide assistance to the financial manager by facilitating the identification of financial requirements, evaluating potential sources of financing, exercising control over fund utilization, allocating financial resources to organizational endeavors, and overseeing capital management. According to (Al-Amin Bel-Qadi, 2016: 121)these are commonly recognized as a systematic methodology for gathering and analyzing data, typically in a quantifiable manner. The implementation of a proficient financial information system is crucial for firms, as it provides managers with the necessary information to make informed decisions regarding organizational management.

Based on the preceding discussion, financial information systems can be defined as a software system for businesses used to input and track financial data, as well as generate reports and alerts that assist managers in effectively managing their operations.

2. Importance of Financial Information Systems:

The financial information system collects and analyzes financial data used for optimal financial planning and decision prediction. It is used in conjunction with a decision support system, helping the organization achieve its financial goals by utilizing minimal resources within a predefined safety margin. The financial information system can be considered as a financial plan for electronic commerce, capable of producing large amounts of market and financial data obtained simultaneously from financial databases worldwide (Cem Dener et al, 2011: 30).

The significance of financial information systems in the realm of e-commerce cannot be overstated, as they play a crucial role in attaining optimal operational outcomes within a limited timeframe. Financial information systems have the capability to generate substantial volumes of data to support routine business activities. There is a significant need for financial information systems among financial market traders and sales reps due to the dynamic nature of their work settings, which necessitates real-time computing capabilities. These professionals rely on such systems to effectively operate in real-time. Brokers, who engage in the examination and allocation of financial resources across several asset classes, have the capacity to transmit such data via financial information systems. This also works with tiny organizations that need financial data on local marketplaces. Financial information systems (FIS) are a type of real-time operating system that is specifically developed to facilitate the efficient interchange of financial information (Al-Mamary et al., 2016: 72).

The process of locating necessary data within a specified timeframe might be protracted and laborious. Inadequately administered software systems may fail to fulfill the entirety of an organization's information needs, as well as hinder the organization's ability to obtain a comprehensive understanding of its financial standing. In order to maintain pace with the demands of modern business operations, an organization need the implementation of a financial information system (FIS), which serves a multifaceted purpose beyond just transactional record-keeping. Furthermore, FIS provides users with the capability to compute a wide range of financial ratios, financial measurements, and other related metrics. This particular system undertakes the processing of intricate data and thereafter generates information that is pertinent to budgetary matters. The Financial Information System (FIS) is responsible for the collection, storage, management, processing, and generation of financial data pertaining to budget, expenses, and income. This system facilitates the acquisition of relevant information necessary for making informed financial decisions. According to (Saeed and Mohammad, 2012: 68), the Financial Information System (FIS) offers comprehensive data pertaining to investments, loans, and taxes within the firm.

This system can be used in various ways, including the following: (Jerry Cater et al, 2015: 44) (Dalal, 2015: 35).

• Ensure the availability of sufficient funds at hand to meet obligations when they become due for payment.

• Invest surplus funds in appropriate and reasonably liquid investments.

• Identify the most profitable and least profitable customers, products, production lines, and subsidiary organizations.

• Identify bottlenecks within the business.

• Determine the maximum amount of funds that can be safely distributed to investors in the form of profits.

• Determine the maximum level of debt that the organization can bear.

We can conclude that Financial Information Systems (FIS) work on:

A- Understanding the functional requirements of financial systems (general ledger, chart of accounts, projects, awards, accounts receivable, cash management, fixed assets, and inventory).

B- Developing technical/functional specifications and working closely with business units and technical teams to design, develop, test, and implement financial reports and analyses.

C- Identifying departmental needs and providing training and communications related to financial procedures and system issues.

D- Financial information systems support the integration of all financial data and processes.

3. Objectives of Financial Information Systems:

This system aims to collect and analyze financial data for making sound financial management decisions in business administration. The primary goal of financial information systems is to meet the financial obligations of the organization when they become due, using the minimum financial resources that align with predetermined safety margins. The system's outputs include financial reports, operating budgets, capital budgets, working capital reports, cash flow forecasts, and many other essential reports (Katarina & Lajos, 2016: 52). According to (Al-Mamary et al, 2016: 75), business information systems such as Financial Information Systems (FIS) work on data transformation and storage, which is why integrating decision support into these systems is essential.

The financial information system aims to collect, categorize, process, and analyze financial data to obtain financial information that can be delivered to the parties in need, whether they are within the organization (decision-making centers within the organization) or outside it (government entities, creditors, investors, and management of the enterprise). It also assists the organization's management in making financial decisions and interpreting the financial results for operational decision-making, allowing supervisors to compare their operations with similar processes (Saeed & Mohammad, 2012: 67).

The primary objectives of financial information systems are as follows (Katarina & Lajos, 2016: 55) (Bakhit & Alamin, 2016: 112):

A - Identifying and collecting data, which are considered the primary sources for the financial system. Raw financial data is processed by sorting, performing arithmetic and logical operations on the data, and subsequently transforming it into financial information.

B - Preserving the organization's assets and protecting them from external parties is achieved through the presence of an effective internal control system that ensures the protection of data and other assets.

C - Meeting reporting requirements for government agencies and their interests, investors, lenders, or beneficiaries.

D - Producing information by gathering, retrieving, transferring, and preparing reports to reach authorized individuals in need of this information.

E - Providing information to management and other users to assist them in decision-making and task accomplishment.

F - Supplying valuable information to current and potential investors, lenders, and other users for the purpose of making investment and lending decisions and similar determinations.

G - Offering accurate and fair information to facilitate sound financial decision-making.

H - Providing information necessary for making appropriate decisions while ensuring proper liquidity status to reduce expenses and increase profits.

I - Preparing financial forecasts, supporting and developing financial plans, and evaluating financial investments and funding sources.

4. Dimensions of Financial Information Systems:

The dimensions of Financial Information Systems include the following aspects: (Saeed & Mohammad, 2012: 68 - 70)

A. System Quality: This dimension relates to the quality of the software and hardware used (Saeed & Mohammad, 2012: 68). The quality of software reflects how well it executes a specific design or conforms to it, based on functional requirements or specifications. This feature can also be described as its suitability for a particular purpose or as a comparison with competitors in the market as a useful product. It is the degree to which software is produced correctly (Cem Dener et al, 2011: 33). As for (Asmahan & Salimah, 2018: 2), they explained that structural software quality refers to how it meets non-functional requirements that support the delivery of functional requirements, such as durability or maintainability, and it involves many aspects that need to be addressed to achieve the desired level of software performance.

(Jerry Cater et al, 2015: 47) explained that software quality is determined by examining both internal and external features of the product. Internal features focus on the quality of the written code, while external features are more concerned with how the program functions at the user level. Maintaining its quality relies on writing good program code by experts. External quality is assessed by how it performs in real-time and its productivity for users.

There exist two significant methodologies employed for assessing the quality of a system: Defect Management and Feature Quality. Defects encompass all elements that fail to match the specified needs of the user. Design flaws may occur if the development team is unable to adequately comprehend the requirements of users or customers. Defects in defect management are classified according to their severity, and the quantity of software problems is quantified. Measures are implemented in accordance with the designated level of seriousness, and control charts can be generated to evaluate the capabilities of the design process (Al-Mamary et al., 2016: 79).

Functional requirements determine what the system must do. Functional requirements can consist of a set of calculations, technical details, data processing, or any specific function that specifies what the software should accomplish or perform (Al-Amin Bel-Qadi, 2016: 122). According to (Sabah et al., 2011: 43), most factors contributing to system quality fall under non-functional requirements. Any application should achieve what it was built for, which is the minimum expected of it.

B. Information Quality: This refers to the credibility, timeliness, appropriateness, and understandability of the reports generated by the system (Saeed & Mohammad, 2012: 68). As (Katarina and Lajos, 2016: 59) pointed out, concerns are growing due to the vast flow of information, which is increasing significantly. Despite the increasing volume of information, many organizational management teams feel they are facing a real crisis. A report published by The Economist in 2005 stated that information is everywhere, but knowledge is hard to come by. This conclusion was based on a study of 122 executives in major European companies, who emphasized that there is a lot of

inaccurate and unreliable information in decision-making (Azemi et al, 2017: 430).

The value of information increases in rapidly changing and competitive environments, such as those in which organizations operate today, in the context of globalization and rapid technological advancements. Such environments are characterized by high uncertainty, and to mitigate this uncertainty, organizations rely on information (Dalal, 2015: 33). As noted by (Bakhit and Alamin, 2016: 113), the higher the quality and accuracy of information, the more it contributes to reducing uncertainty and, thus, improving the quality of decisions in the organization.

If the decision is the essence of administrative work, the foundation of every decision is information. The quality of the decision must first and foremost mean the quality of the information on which it is based. The more important the decisions, the more important the information becomes from at least two main aspects. (Sequeira & Surekha, 2018: 66)

The first aspect is the quality of the information provided, which implies accuracy, integrity, and objectivity in the information presented to top management for critical decision-making.

The second aspect is the level of information focus. This means that top management in its strategic decisions requires detailed operational information to the extent that it is efficient and intelligently provided by executive and strategic information systems.

Information quality is the new focus on quality, succeeding the emphasis on goods and later on services. Following that, attention shifted towards the quality of information, whether it's information provided through traditional physical means (such as reports and paper records) or modern digital methods (like digital products, databases, and information) (Katarina & Lajos, 2016: 58). Information quality might appear as an extension of quality concepts applied in the context of goods or services within the domain of information (Sabah et al., 2011: 41). (Sequeira & Surekha, 2018: 68) In this field, two generations of data and information quality are discussed, which are:

1. The first generation produces large quantities of information, which may contain errors that are detected and then processed. This corresponds to the historical evolution of quality concepts, where the inspection phase was responsible for discovering defects and correcting deviations from specifications.

2. The second generation of information quality goes beyond error prevention, emphasizing the ability to adapt with a strong focus on customer satisfaction, all while achieving this at a lower cost and with greater confidence in its use for decision-making.

However, we see that the quality concepts applicable to goods and skill-based services do not meet the quality of information because they surpass the characteristics of information compared to goods and services. This is evident in the increasing focus on information quality dimensions that respond to the unique attributes of information. It is worth noting that many studies have confirmed that one dimension of information quality is objectivity, meaning the absence of bias in the information, and this may not appear in the dimensions of product or service quality because it is not relevant to them (Azemi et al, 2017: 431).

Information quality is defined as its suitability for use, which is the degree to which it meets the needs and expectations of information providers or knowledge workers in their work.

C. User satisfaction indicates a complete belief by users that the information generated by the system meets their requirements (Saeed & Mohammad, 2012: 68). According to (Illari & Floridi, 2014: 81), user satisfaction refers to the extent to which the beneficiary believes that the system fulfills their informational needs. User satisfaction means the ease of interaction with the system and the utilization of the information it produces. Recognizing the characteristics of the information generated by the system is an important aspect of evaluating its efficiency (Subiyakto et al, 2016: 216).

(Hartono et al., 2010: 400) mentioned that the concept of satisfaction is one of the most psychologically

complex concepts in administrative psychology because it is an emotional state that is difficult to measure and study objectively. It is a process linked to an employee's emotional feelings towards their work. The term "satisfaction" can only be applied to a set of positive emotions that an individual experiences when fulfilling their material and spiritual needs (Reza Vaezi, 2013: 12).

This particular dimension is well recognized as a prevalent metric for assessing the effectiveness of information systems across various manifestations. According to (Subiyakto et al., 2016: 217), the level of user satisfaction plays a crucial role in determining the effectiveness of information systems and serves as the fundamental basis upon which system beneficiaries rely while utilizing the system. User satisfaction is a measure of the beneficiary's perception on the degree to which the system fulfills their information requirements. Numerous methodologies have been utilized for the evaluation of user satisfaction, encompassing the evaluation of the information system's alignment with user requirements, contentment with the hardware and software components, the system's efficacy in executing necessary tasks, and its capacity to augment productivity (Chetna & Anusree, 2017: 730).

User satisfaction is defined from a cognitive perspective as the extent to which the system is capable of assisting users and providing value to both internal and external customers, with internal customers being the users themselves (Illari & Floridi, 2014: 81). Kassim et al. (2012: 413) explained that it is an emotional stance of users towards the system with which they directly interact.

Information security is the system's ability to provide protection for information through technical tools and policies to safeguard data from unauthorized use, theft, tampering, and more (Saeed & Mohammad, 2012: 68). As (Reza Vaezi, 2013: 13) pointed out, significant technological advancements, diverse communication and networking methods, and the global interconnectedness have increased the risk of data leakage and unauthorized access by competitors or malicious parties. This has made it imperative to ensure information security. (Azemi et al., 2017: 433) explained that information security entails complete control over information, determining who receives the data, specifying access rights, and utilizing various techniques to prevent unauthorized access by any entity. Its significance ranges from safeguarding privacy to protecting critical data like customer accounts in banks.

The importance of information security is undeniable. This field plays a crucial role in safeguarding and protecting information from the various threats it faces. Information security provides protection and safety for computers against malicious software, as discussed earlier, which is a significant adversary to computer systems. The field of information security is vital, constantly evolving, and in high demand, as it is indispensable in our modern world. It is a distinct and essential discipline (Chetna & Anusree, 2017: 733).

Information security is a field or discipline that examines how to protect information, data, and their systems, providing the appropriate means and methods to achieve this goal. Information security is one of the branches of computer science (Kassim et al, 2012: 418). It involves safeguarding information and data transmitted over the Internet from tampering, alteration, sabotage, or any threats such as unauthorized access and data manipulation or unauthorized viewing. This is achieved by providing the necessary means and methods to protect them from both internal and external risks.

Elements of Information Security (Haleemi, 2020: 9-10)

• Confidentiality: It means preventing unauthorized access to another person's data.

• Data Integrity and Safety: Data integrity here means preserving data from modification or alteration by unauthorized individuals who have access to it. For example, if a person gains access to data intentionally or unintentionally and makes changes that are not allowed, or if a virus infects a computer and alters its data, this is also considered a violation of data integrity and the absence of complete information security.

• Data Availability: Data availability means having data complete and accessible when needed, ensuring

that the information is accurate, unaltered, or incomplete, allowing system components to function correctly.

Secondly: The Conceptual Framework of Knowledge Accumulation.

1. The Concept of Knowledge Accumulation.

Knowledge is the awareness and understanding of facts or the acquisition of information through experience, self-reflection, or by exploring the experiences of others and reading their conclusions. Knowledge is associated with intuition, self-development, and the discovery of the unknown (Lettice Fiona et al, 2016: 218). (Cheng Colin et al., 2018: 177) clarified that knowledge is the skills and experiences acquired by an individual through experience or education. It represents the theoretical or practical understanding of a subject, what is known in a particular field based on facts and information, and the awareness or experience gained from reality or a situation.

As pointed out by (John & JoAnn, 2015: 2), it is a description of a state or process concerning certain aspects of life for individuals or groups prepared for it. (Dalkir, 2011: 39) further clarified that the continuous availability of knowledge contributes to what is known as knowledge accumulation.

Knowledge accumulation, also known as knowledge inflation or cognitive overload, refers to the situation where the knowledge acquired on a particular issue exceeds the required amount of knowledge for the individual concerned. This phenomenon has emerged in tandem with the age of easy access to information and data through electronic media. Statistics indicate that general information doubles every two and a half years, leading to a loss of critical thinking and analysis. The information overload and presentation method do not allow for the opportunity to evaluate or oppose it (Andy Dong, 2006: 35).

The evolution in organizational practices is undoubtedly a result of knowledge accumulation. Knowledge has taken on a fundamentally accumulative meaning. However, the relative rate of knowledge accumulation is higher than the relative rate of knowledge application, creating a clear gap between the increase in knowledge and its applications. This gap narrows as the results of research are increasingly applied to technology development. Therefore, there is intense global competition to harness scientific knowledge and convert it into technology. Scientific and technological progress has been the primary factor in the significant gap between industrially advanced countries and others (John & JoAnn, 2015: 2).

Leveraging knowledge accumulation necessitates a change in the status quo within every organization. This is achieved by making education development and scientific research support two fundamental pillars in the quest for creating a knowledge-based society. Solutions to various fundamental human challenges cannot be realized without a successful educational system and advanced scientific research (Al-Tamimi, 2009: 54).

In conclusion, based on the information presented, knowledge accumulation can be defined as the continuous acquisition of additional knowledge, skills, and experiences, with the purpose of multiplying and storing them for future utilization.

2. The Significance of Knowledge Accumulation:

As widely known, this era is characterized by a knowledge explosion and information overload. Individuals face significant challenges in dealing with the ever-increasing volume of information flowing through the international information network and various information technology platforms. The immense amount of information can be harnessed to formulate appropriate strategies for achieving goals (Renee Prendergast, 2010: 415).

One of the fundamental advantages of this approach to education is its ability to address the issue of continuous knowledge growth, which is a common phenomenon in all fields. This issue cannot be

resolved as no program can cover everything in the relevant field. This method is an effective way to combat information overload, and it is an ongoing process (Cheng Colin et al, 2018: 179).

In general, knowledge and its offspring, technology, have impacted the global economy in several ways. Some of the most significant aspects include (Dalkir, 2011: 39) (Freeze et al, 2007: 95).

- Increasing the importance of innovation and creativity to face global competition.

- Building stronger relationships between educational institutions and production and service sectors.

- Integrating information technology and its applications into various economic sectors, with these technologies emerging as a fundamental factor in adding value.

- Rapid and significant progress in technological advancements and their comprehensive applications.

- Developing new methods in management and organization, with interactive management adapting to changing circumstances.

- Facilitating the flow of goods and information among all sectors of the economy and their influencing factors.

The significance of knowledge accumulation can be seen through:

- Leveraging the abundance of information to develop ideas and organizational strategies.

- Enhancing human capabilities, both technically and intellectually.

- Managing relationships with all stakeholders.

3. Dimensions of Knowledge Accumulation:

The dimensions of knowledge accumulation include the following (Andy Dong, 2006: 36) (Renee Prendergast, 2010: 414).

A. Data Analysis: Data analysis is the practice of arranging and organizing raw data in a coherent manner to extract useful information from it (Aleš Popovič et al, 2018: 2). The process of organizing data and thinking about it is essential to understand the differences between what the data contains and what it doesn't. There are various methods for data analysis, and it is known that manipulating data during the analysis stage is easy to push certain conclusions or business reports (AGARWAL & DHAR, 2014: 445). For this reason, it is important to pay attention when presenting data analysis and to think critically about the conclusions and data that have been drawn. Raw data can take various forms, including measurements, survey responses, and observations, in their raw form. This information can be incredibly useful, but at the same time, it can be overwhelming (Jiwat Rama et al, 2016: 225).

Data analysis is the process of examining, verifying, and scrubbing data to make it more accurate, as well as restructuring and storing it to ultimately derive information for making decisions. There are various methods for data analysis that vary depending on the field in which they are used. Data analysis can be applied in the sciences, social sciences, and financial sectors (Leonard, 2014: 55). The goal of data analysis is to prepare what is called a system data model, and this process is considered one of the main activities in the analysis phase. Data modeling is often done using graphical models, such as charts and diagrams that somewhat resemble data flow diagrams (Jiwat Rama et al, 2016: 223). As noted by Aleš Popovič et al. (2018: 2), data analysis plays a crucial role in making more informed decisions and helping companies operate more efficiently.

The steps of data analysis, as outlined by AGARWAL & DHAR (2014: 445), include:

1. Data Requirements Determination: This is the first step in data analysis and involves identifying and defining the qualitative and quantitative characteristics and other important aspects required in the data to be analyzed.

2. Data Collection: Data is collected from various sources to ensure that the requirements determined in the first step are met. Data can be gathered by individuals or obtained through modern techniques.

3. Data Organization: After collecting the data, it is organized into tables with rows and columns, similar to spreadsheets in software like Excel.

4. Data Validation: It is essential to validate the data to ensure that the resulting information is accurate and free from errors. This is done by reviewing the data and removing or correcting any inaccuracies.

B. Data Classification: Classification is the process of distinguishing data from one another, dividing it, and arranging it into groups based on their similarities, where each class contains a set of units that share specific attributes or properties (Jan De Leeuw, 2014: 411). (Shekhar Pandey, 2018: 19) pointed out that classification in organizations is based on dividing human knowledge into diverse subjects while assigning a specific code to each subject. This is done by highlighting human subjects in a way that helps connect them, with general subjects preceding the specific ones, while considering the relationship of each subject to the one that follows it.

Data classification provides time and effort savings, spatial organization, and effective space utilization. For example, classification and organization in household matters contribute to obtaining the required information in a timely and efficient manner (Vinithra et al, 2015: 55). The stages of data classification include the following (Jan De Leeuw, 2014: 413):

- Data validation and handling of missing questionnaires.

- Establishing a specific system for data classification and categorization. It is important to follow a clear and defined classification method.

And the classification of data is essential for effective management of organizational data. It involves sorting data into categories to identify the risks associated with each group, as well as evaluating these risks and determining vulnerabilities. It also encompasses establishing plans to safeguard this data within each category and specifying who is authorized to access, view, or modify it (Ani et al., 2016: 1288). (Priyanka and Gupta, 2015: 1454) mentioned that data classification is the process of sorting and categorizing data into groups to assess the risks surrounding each category, So, the evaluation of these risks, identifying vulnerabilities, and developing the necessary plans to protect this data within each category, as well as specifying who is authorized to access, view, or modify it, is essential (Vinithra et al., 2015: 57). Therefore, the data classification process will facilitate information management, data management, and the selection of required protection methods. It also aids in implementing security policies for information based on each category. Additionally, data classification helps organize and determine data access (Ani et al., 2016: 1289).

The utilization of human resources is widely recognized as a pivotal and fundamental element in the process of a nation's economic advancement. The economy is influenced by the accessibility of natural resources; however, the effective utilization of these resources is contingent upon the presence of human resources. Germany and Japan are two countries that have demonstrated exceptional performance in this aspect. Despite their limited natural resources, both nations have used their robust human resources to achieve remarkable outcomes. According to (Rodrigo Valio, 2018: 2), this achievement has positioned them among the highest echelons of influential and technologically advanced countries on a global scale. According to (John et al., 2013: 2913), the concept of human resources is expansive, yet it is intricately linked to persons who are involved in diverse activities inside an organization or field, irrespective of its characteristics. There is a perspective that associates human capital with human resources, positing that persons are the primary contributors to the creation of capital. The achievement of optimal usage of human resources is contingent upon making investments in their development and progress.

Human resources are widely regarded as a basic metric for assessing a nation's wealth. These resources

are indicative of the primary forms of capital and assets that exert a significant influence on the social and economic standing of nations. The significance of human resources and their efficiency in determining progress has been widely acknowledged by economists, who have consistently highlighted the necessity of cultivating and utilizing human resources to foster economic growth (Fernando & Ludovico, 2012: 531). According to (John et al., 2013: 2914), the allocation of resources towards human capital is widely recognized as a valuable and high-yielding form of investment. The advancement of nations is contingent upon the development and utilization of their human resources. An economy that possesses limited value can only make strides towards progress by effectively harnessing the potential of its human capital. This transformation of raw amounts into a wide range of technological capabilities is crucial for achieving the required level of advancement.

"Given the paramount importance of human resources and their ability to contribute positively or negatively to achieving an organization's goals, modern management places significant emphasis on human resource issues from two perspectives: (Analoui et al, 2012: 5)

1. Human Resource Planning.

2. Human Resource Development.

The two perspectives integrate into the concept of 'Human Resource Management,' and in recent years, the term 'Strategic' has been added to it, making it 'Strategic Human Resource Management.' This reflects the strategic importance of human resources and the connection between dealing with them and the overall strategies of the organization. Training, therefore, can be seen as an investment in the available human resources at various levels, with its benefits extending to both the organization and the human resources that constitute it (Rodrigo Valio, 2018: 3).

C. Continuous Development: Continuous development is a concept within quality management that is closely related to other concepts such as total quality management and the house of quality, among others. It holds significant importance among professionals due to its attractiveness and ease of application within organizations (Jagdeep & Harwinder, 2015: 77). Sikandar Ali (2018: 41) pointed out that the principle of continuous development is based on the idea that all employees in an organization have the right to develop themselves through small steps that can have a significant impact on the future. On the other hand, the concept of continuous development is applicable in all types of organizations and is also beneficial for non-profit organizations.

According to (Fabiane et al., 2016: 536), the authors assert that the philosophy of continuous improvement serves as a very resilient framework for facilitating change within businesses that aspire to endure and expand. This philosophical approach necessitates an initial dedication to enhancing processes, minimizing discrepancies, and attaining client contentment. Furthermore, active engagement, dedication, and a strong feeling of individual accountability are necessary for all those participating in said procedures. Moreover, it necessitates collaborating with suppliers and comprehending the sequential progression of operations in order to mitigate bottlenecks and minimize unproductive time and exertion. This statement underscores a core tenet of comprehensive quality management, namely, the interconnectedness of all individuals within an organization, spanning various hierarchical levels and functional units, in relation to the ongoing pursuit of improvement. The utilization of individuals' expertise and talents should be optimized in order to improve the efficiency of processes. This can be accomplished by fostering strong collaboration among the various departments responsible for executing these processes. Such collaboration is essential for facilitating a shared comprehension of the requirements of both internal and external customers.

Continuous development is defined as an ongoing review of the various costs incurred by the organization, achieved by studying the production stages in a way that reflects the reduction of the cost of the unit produced or the provided product. It involves a process of continuously improving machinery, work, materials, and production methods by encouraging new ideas and suggestions from

the organization's work teams (Jagdeep & Harwinder, 2015: 78). One of the key features of continuous development is that significant results are achieved through the cumulative effect of small changes over time (Hector Ricardo et al, 2013: 393).

The philosophy of continuous development is of great significance in improving all aspects of engineering, application, and management work. This strategy focuses on changing daily operations with the aim of reducing resource waste, streamlining processes, and saving time to increase efficiency and profitability (Sikandar Ali, 2018: 44). Several researchers, such as (Fabiane et al., 2016: 537), believe that the success of Japanese organizations in offering low-cost, high-profit products is a result of their regular and continuous application of this philosophy. One notable example is Toyota, which began as a textile mill and now boasts more branches worldwide than the American fast-food chain McDonald's.

Thirdly: The theoretical relationship between the study variables

Knowledge is a constituent element inside a comprehensive collection of database components, which encompasses two distinct systems. The link between knowledge and information systems is integrative, as they mutually enhance each other in order to effectively fulfill the database components in a manner that aligns with the requirements of the database. In essence, the many outputs generated by information systems can be regarded as inputs for the purpose of knowledge management. In order to facilitate the accumulation of knowledge, it is necessary to obtain data that has been processed in a manner that renders it useable. This processed data, referred to as 'system outputs,' holds value and may be readily utilized. The acquisition of information and experiences is a vital aspect of knowledge accumulation. Knowledge management is commonly understood to rely on the concept of institutional memory, which refers to an organization's capacity to effectively preserve and access facts, experiences, and information inside easily accessible information systems (Al-Mamary et al., 2016: 79).

The field of Financial Information Systems encompasses the integration of information technology, computer science, and financial management. It additionally pertains to a collection of computerized systems designed to offer financial management services inside a certain corporate context. According to (Cem Dener et al., 2011: 34), this system provides managers with information regarding the historical and current financial activities of the firm. Information systems facilitate the establishment of a cohesive setting wherein they furnish requested and documented information within databases, analyze it through predetermined strategies, and convert it into valuable knowledge. This knowledge, in turn, supports the management of knowledge to attain intended goals. It is important to acknowledge that the link between knowledge management and information storage systems is reciprocal. Knowledge management facilitates the provision of essential information for storage in systems, as well as the examination and rectification of inaccurate or obsolete information (Saeed & Mohammad, 2012: 71).

Chapter Three: The Practical Dimension of the Research.

First: Description of the Research Field and Sample

1. Describing the Company - Research Sample

Gulf Commercial Bank	International Development Bank
"Gulf Commercial Bank" is an Iraqi bank established as a private joint-stock company under Certificate of Incorporation No. 7002 dated 20/10/1999, issued by the Companies Registration Department in accordance with the Companies Law No. 21 of 1997. The bank had a fully paid capital of IQD 600,000,000 and commenced its actual operations on 1/4/2000. The main branch opened its doors to the public on the same	The International Development Bank was established in 2011 with a capital of IQD 100,000,000,000. In accordance with the requirements of the Central Bank of Iraq, the bank gradually increased its capital in the years 2013-2015, resulting in a fully

date after obtaining a license to engage in banking activities from the Central Bank of Iraq, numbered (S.A./9/3/115) and dated 7/2/2000, in accordance with the provisions of the Central Bank of Iraq Law No. 64 of 1976, which is now obsolete. The bank has amended its Articles of Incorporation several times, increasing its capital, and as of 8/9/2013, its capital stood at IQD 250 billion, equivalent to 212 million US dollars. The bank plans to reach IQD 350 billion by 2015. The bank has 23 branches located in Baghdad, Babylon, Diwaniya, Basra, Najaf, Karbala, Erbil, and Wasit, as well as Tikrit.	paid-up capital of IQD 250,000,000,000, equivalent to $210,000,000. It quickly became one of the leading banks at both the local and regional levels, offering advanced banking services to its clients in both the individual and corporate sectors. By 2018, the number of shareholders had increased to over 100, with their common shares listed on the Iraq Stock Exchange.

2. Description of the Research Sample.

The research sample included a group of employees working in banks under study. A total of 120 questionnaires were distributed, with 60 questionnaires allocated to each bank. Out of these, 112 valid questionnaires were collected for analysis, making them the instruments used for data and information collection. The survey questionnaire was employed as the primary tool for gathering data and information.

Secondly: Description and Diagnosis of Research Variables

1. Description and Diagnosis of Financial Information Systems: Table (1) presents a comprehensive overview of financial information systems, showcasing an agreement rate of (78.6%) for these systems. The data collected from the participants employed in the institutions being examined demonstrates that they expressed approval for the utilization of financial information systems, as determined by the various aspects of these systems. Nevertheless, a portion of the participants exhibited unfavorable reactions, accounting for (7%) of the total, while another subset either lacked a definitive viewpoint or offered indifferent comments, comprising (14.4%) of the sample. Based on the preliminary examination of the participants' responses, it may be inferred that the banks being investigated are equipped with financial information systems. The mean of all the items in the table was calculated to be (3.54), with a standard deviation of (0.79). Additionally, the variance coefficient for these items was determined to be (0.215). The prioritization of financial information systems for description can be outlined as follows:

A - Contributing to the positivity of this variable is the quality of information, with an agreement rate of 81.1%, ranking it in the first position, and a mean of 4.00.

B - User satisfaction ranked second with an agreement rate of 79.4% and a mean of 3.96.

C - Information security came in third place with an agreement rate of 79.1% and a mean of 3.14.

D - Lastly, system quality was rated at an agreement rate of 74.6% and had a mean of 3.07.

Table (1) Summary of Financial Information Systems

Financial Information Systems	I completely agree, I agree.	Neutral.	I disagree, I completely disagree.	The arithmetic mean.	The standard deviation.	The coefficient of variation.
System quality.	**74.6**	**18.2**	**7.2**	**3.07**	**0.73**	**0.23**
Information quality.	**81.1**	**11.5**	**7.4**	**4.00**	**0.89**	**0.22**
User satisfaction.	**79.4**	**13.7**	**6.8**	**3.96**	**0.81**	**0.20**

Information security.	**79.1**	**14.3**	**6.6**	**3.14**	**0.73**	**0.21**
The overall average.	**78.6**	**14.4**	**7**	**3.54**	**0.79**	**0.215**

Source: Compiled by the researcher based on the outputs of the statistical software.

2. Description and Diagnosis of Cognitive Accumulation Dimensions: Table (2) presents a comprehensive overview of the cognitive accumulation aspects, with an overall agreement rate of(78.4%)observed for these dimensions. The findings suggest that the persons who were the subject of the research in the banks being examined acknowledged the utilization of cognitive accumulation characteristics by these banks. Nevertheless, a subset of participants had a pessimistic outlook, accounting for (7.1%) of the total, while another group remained undecided or offered impartial comments, comprising (14.5%) of the sample. The preliminary examination of the participants' responses indicates that the banks being investigated exhibit cognitive accumulation features. The mean of all dimensions was found to be (3.89), with a standard deviation of (0.86) and a variance coefficient of (0.215). The determination of the order of priority for characterizing cognitive accumulation dimensions might be based on the amount of agreement.

A - Played a major role in the positive rating of this variable (Human Resource Utilization), with an agreement rate of 82%, ranking it first.

B - Ranked second with an agreement rate of 78.1% after classifying the data.

C - Data analysis ranked third with an agreement rate of 76.8%.

D - Continuous development ranked fourth with an agreement rate of 76.8%.

Table (2) Summary of Cognitive Accumulation Dimensions

Cognitive Accumulation Dimensions	Completely agree, agree	Neutral	Disagree, completely disagree	Arithmetic mean	Standard deviation	Coefficient of variation
Data Analysis	**76.8**	**15.1**	**8.1**	**3.70**	**0.88**	**0.23**
Data Classification	**78.1**	**14.4**	**7.5**	**3.86**	**0.86**	**0.22**
Human Resource Utilization	**82**	**12.3**	**5.7**	**4.03**	**0.80**	**0.19**
Continuous Development	**76.8**	**16.3**	**6.9**	**3.98**	**0.88**	**0.22**
Overall Average	**78.4**	**14.5**	**7.1**	**3.89**	**0.86**	**0.215**

Source: Compiled by the researcher based on the outputs of the statistical software.

Secondly: Testing the Research Hypotheses.

1. Testing the First Hypothesis: It states that "there is a statistically significant positive relationship between financial information systems and cognitive accumulation as indicated by their dimensions at the overall level." Table (3) presents the results of testing the relationships related to this hypothesis.

Table (3) Results of Testing Relationship Correlations in the Banks Under Study.

The explanatory variable. / The responsive variable.	The principles of lean accounting.
Black box accounting practices.	*0.62

N=112 **0.05 ≤ P***

Table (3) indicates a statistically significant and positive relationship between financial information systems as a whole and cognitive accumulation. The total correlation coefficient value was 0.62 at a significance level of 0.05. This is evidence of a relationship between the two variables, suggesting that as banks under study pay more attention to their financial information systems, they contribute to enhancing cognitive accumulation by improving the quality of information and data, and by enhancing information security, which can lead to user satisfaction. Based on the statistical analysis results of the relationship between the research variables, the primary hypothesis is accepted at the banks' level.

2. Testing the Second Hypothesis: It states that "there is a statistically significant impact of lean accounting principles in reducing black box accounting practices, as indicated by their dimensions at the overall level." Table (4) illustrates this impact as follows:

Table (4) The Impact of Financial Information Systems on Cognitive Accumulation in the Banks Under Study.

explanatory variable. / responsive variable.	Dimensions of financial information systems.			F
	β0	β1	R^2	
Cognitive accumulation dimensions.	0.659	0.672 (10.117)*	0.43	89.06

(*) Indicates the calculated T-value.

N=112 DF=1. 110 P ≤ 0.05*

The table (4), which is dedicated to regression analysis, indicates a significant positive impact of the financial information systems as a whole when considered as explanatory variables on cognitive accumulation as a responsive variable. The calculated (F) value is (89.06), which is greater than the tabular value at degrees of freedom (1, 110) and a significance level of 0.05. The determination coefficient (R^2) is 0.43, indicating that 43% of the explained variances in cognitive accumulation as a whole are attributed to the influence of financial information systems' dimensions. By examining the coefficient (β1), it is evident that an increase in attention to the dimensions of financial information systems by one unit leads to a change of 0.672 in cognitive accumulation. As for the coefficient (β0), it means that the banks under study achieve cognitive accumulation regardless of the effectiveness of financial information systems. By observing the calculated (t) value of (10.117), which is both significant and greater than the tabular value at a significance level of (0.05) and degrees of freedom (1, 110), the second primary hypothesis is accepted, indicating a significant impact of financial information systems as a whole on cognitive accumulation in the banks under study.

Chapter Four: Conclusions and Recommendations

First: Conclusions

The research aimed to initiate its data building on the theoretical framework that the pioneers in financial thought and the field of financial management have established, along with the intellectual and philosophical concepts employed within a scholarly context. It served as an intellectual model and a starting point for subsequent studies. Therefore, the research transitioned from exploring its intellectual data to a set of conclusions as follows:

1. There is a significant positive correlation between combined financial information systems and combined knowledge accumulation in the research banks, as evidenced by the correlation coefficient values at the overall level.
2. There is a substantial positive impact of combined financial information systems on combined knowledge accumulation, indicating that an increased interest in implementing these systems contributes to enhancing knowledge accumulation.
3. Effective use of financial information systems enhances knowledge accumulation in the research banks by improving system and information quality, enhancing information security, and achieving user satisfaction.
4. The adoption and utilization of financial information systems in the research banks build trust among all interested parties (management, employees, beneficiaries), thereby fostering knowledge accumulation. Additionally, it helps in addressing deviations that may occur in financial operations.

Secondly: Recommendations

Based on these conclusions, the researcher offers several recommendations, presenting them to those involved in these research banks and researchers. The hope is that they will receive the appropriate and sufficient attention to achieve the intended purpose of this research. The recommendations include:

1. It is essential for financial institutions to pay attention to all aspects of financial information systems by conducting financial and realistic studies and research. These studies should determine the feasibility of these institutions to implement and benefit from their results, whether in the present or in the future.
2. Creating more awareness about the importance of adopting the knowledge accumulation philosophy used by advanced countries' financial institutions is crucial for banks currently under study. Given the modern concept of knowledge accumulation and its significance in the performance of financial institutions, these banks under study should take on the responsibility of developing and promoting this concept and implementing it in other financial institutions.
3. Working on training and developing the skills of employees in banks under study to acquire the necessary knowledge of crucial financial information systems is important. This will help them apply this knowledge in a way that serves the goals of these banks in achieving profitability.
4. Focus on the topic of financial information systems in bank management under study is necessary to understand how to practice it, as it is one of the contemporary trends that govern the development of all banking capabilities and expertise.
5. Emphasizing the concept of knowledge accumulation in banks under study is essential because it represents the foundation for the success of all banks and ensures their development and prosperity.

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