
**Requirements of Management Information Systems in
Enhancing the Dimensions of Organizational Culture for
Employees in the Saudi Banking Sector: Case Study on Al-
Rajhi Bank in Asir, Kingdom of Saudi Arabia**

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Abstract

The study aimed to explore the impact of the efficiency of management information systems (physical, network, and human) requirements in enhancing the organizational culture of employees in the Saudi banking sector. The study adopted the analytical descriptive approach, and the study community represented the employees of Al-Rajhi Bank in the Asir region, numbering 200. The random sample method was used, and the study relied on the questionnaire as the main tool for data collection. The questionnaires were distributed and (160) valid questionnaires were retrieved for analysis. Descriptive statistics (median, standard deviation, correlation) and analytical statistics (exploratory and confirmatory factor analysis and path analysis) were used.

The results of the study revealed a statistically significant positive relationship between the requirements of management information systems (physical, network, and human) and the organizational values of the culture of employees of Al-Rajhi Bank, while there is

no statistically significant positive relationship with the organizational attitudes of the culture. The study results also revealed that the efficiency of the requirements of management information systems has a very high significant impact on enhancing the organizational culture of employees in Al-Rajhi Bank.

In light of the previous results, the researcher recommended the necessity of paying attention to developing a flexible digital infrastructure and supporting it by enhancing the readiness of information security in the bank under study. The necessity of involving employees in the processes of developing and updating information systems, and the need to design effective incentive and motivation systems linked to the use of information systems to enhance the culture of digital use in banks.

Key Words:

Management Information Systems - Organizational Culture - Dimensions of Organizational Culture - Al-Rajhi Bank – Saudi Arabia.

1. Introduction

The organizational culture has received distinguished intellectual attention in recent decades, which was not witnessed in the previous decades, and this is what we perceive through the studies regarding its nature and determining its role in building the contemporary and future life. The beginnings of interest in it

go back to the beginning of human existence and the evolution of the stages of his life, as it was used in the Stone Age to identify how to make the stone tools necessary for his survival, and it was used in the agricultural stage to identify agricultural methods. And it was used in the industrial stage in the production of goods and services, the development of machinery and equipment, and the formation of skills and experiences. It soon became the nerve of life, as it began to enter into all areas of life. Therefore, the thought revolved around striving to develop its concept, determine the paths of its entries, and formulate its dimensions (Imran et al., 2022).

Organizational culture has become an essential element that distinguishes any organization from others, as it is the beating heart that beats within the structure of the institution, and the behaviors of its employees reflect its values and beliefs, as it is the spiritual environment that is formed within the corridors of the organization, which contains directives and policies that affect the performance of its employees. (Abdel-Hamid and Abdo, 2022).

In the context of the fast-paced work environment and the reliance on technology in the current era, organizations have become increasingly aware of the importance of developing a strong and positive organizational culture. They have become in need of a new pattern of managers who have the ability to lead efficiently and effectively, with flexibility and the ability to achieve in a way that exceeds the routine systems and rules.

(Kobarci, 2008:54), and the effective use of Management Information Systems (MIS) is one of the main factors in achieving this culture, due to the vital role that management information systems play in facilitating effective and transparent communication within the organization. By providing accurate and updated information to employees, they enhance open communication channels and enhance a culture of transparency. This allows employees to stay informed about the organization's goals, performance, and strategies, which enhances their belonging and alignment with the organization's mission.

2. Methodological framework

2.1. The study problem

This study aims to test the impact of the requirements of management information systems (physical, network, and human) on the dimensions of organizational culture (organizational values, organizational attitudes) in Al-Rajhi Bank in Asir, through the following main question: Do the requirements of management information systems affect the dimensions of organizational culture?

2.2. The Importance of the Study

A- The Scientific (Theoretical) Importance:

- The study helps to understand the main steps for diagnosing the organization's culture and identifying the methods of organizational culture and seeking to practice and apply them to know the resulting impact of this practice.

- The study presents an attempt to address the research gap, by standing on the impact of organizational culture on the job performance in the banking sector institutions in Asir.
- The subject of the study is a vital topic to provide a scientific framework to demonstrate the importance of management information systems and their role in enhancing the organizational culture of employees in the banking sector under study.

B- The Practical Importance:

- Highlighting the strengths resulting from the application on the ground, as this study is an invitation to the interaction between management information systems and the organizational culture of employees in the banking sector.
- The results of the study can be utilized by using MIS to enhance open communication channels and a culture of transparency within banks, encouraging employees to take initiative and be creative to improve performance and develop banking services.
- Highlighting the importance of organizational culture in the banking sector, and highlighting the role of management information systems in enhancing the organizational culture of employees in the banking sector.

2.3. Objectives of the Study:

- Identify the relationship between management information systems and organizational culture.

- Test the relationship between the requirements of management information systems and the dimensions of organizational culture in Al-Rajhi Bank.
- Provide recommendations to enhance the positive organizational culture in banks.

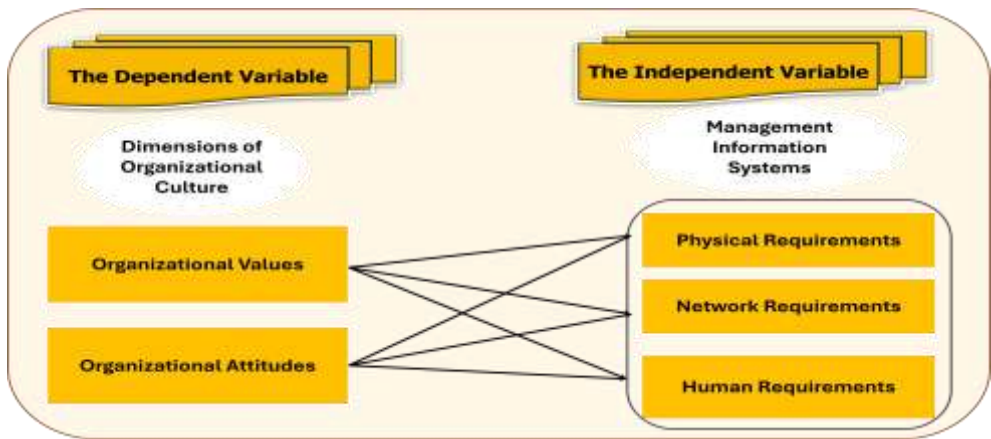


Figure 1: Study Model - Prepared by the author based on the literatures, 2024.

3. Study Hypotheses

Based on the study model (Figure 1), the following main hypothesis was formulated as the following: There is a statistically significant relationship between the requirements of management information systems (physical, network, and human resources) and organizational culture, and the following sub-hypotheses can be derived:

Sub-Hypothesis 1:

There is a statistically significant relationship between management information systems (physical, network, and human resources) and organizational culture (organizational values).

Sub-Hypothesis 2:

There is a positive statistically significant relationship between the requirements of management information systems (physical, network, human) and organizational culture (organizational attitudes).

3.1. Research Methodology

The study followed the descriptive analytical approach, which is the most appropriate methodology to the study context. The study problem is described by identifying the prevailing organizational culture, then analyzing its impact on the performance of employees in Al-Rajhi Bank and identifying the most important factors influencing this culture and the relationship between it and management information systems, and then proposing a set of recommendations.

3.2. Sources of the Study

Primary Sources: Represented in the data and information about the study community and the research elements.
Secondary Sources: Books and references (Arabic, English),

research, and scientific papers (national and international), websites and refereed scientific periodicals were used to enrich the study scientifically, literarily, and practically.

3.3. Study Sample

The study sample consists of the employees of Al-Rajhi Bank who occupy leadership positions, represented in (department managers, section managers, employees) of various job and educational degrees.

3.4. Scope of the Research

To achieve the objective of the study, it was defined in the following aspects:

- **Organizational Boundaries:** The study is applied to Al-Rajhi Bank in the Kingdom of Saudi Arabia.
- **Human Boundaries:** The study is applied to the employees of Al-Rajhi Bank (Abha - Khamis Mushait).
- **Time Boundaries:** This is the period of conducting the field study during the first half of the year 2024.

3.5. Proposed Analysis Methods for the Study:

(Percentages, Arithmetic Mean, Standard Deviation, Correlation, Factor Analysis, Multiple Regression, Simple Regression)

3.6. Basic Definitions of The Study Variables:

Organizational Culture: It is a set of habits, customs, traditions, and organizational values specific to the employees, which can influence them, guide their behavior, and enable them to solve the problems encountered in the work environment of Al-Rajhi Bank, and determine the type of response to the requirements of change related to the management information systems. Maddawi and Muhammad defined it as a set of values and beliefs possessed by the employees of Al-Rajhi Bank, represented by creativity, cooperation and teamwork, participation in decision-making, and the process of development and training to benefit from the application of management information systems in the work environment. (Maddawi and Muhammad, 2023).

Organizational culture is one of the most important factors that affect the performance of employees in the organization, as it represents a set of shared values, standards, and expectations that govern the behavior of individuals within the organization. It affects all aspects of work, including job performance. We mention its concept as follows (Salama et al., 2023).

Organizational Values: They are the core of organizational culture, and they are a set of shared standards and principles that govern and guide the behavior and actions of employees in the organization. These values determine what is acceptable and what is rejected and affect the attitudes and motivations of

employees towards performing their work and achieving the organization's goals.

Organizational Trends refer to the preconceived perceptions and inclinations of employees towards different situations and issues within the organization. These trends are shaped by the process of social upbringing and the previous experiences the individual has gone through during their life stages. They reflect the individual's readiness to act and respond in a certain way towards the events and situations they face in the work environment.

Management Information Systems (MIS):

Management Information Systems (MIS) are an integrated set of components and resources that work together in a coordinated manner to provide the necessary information for decision-making and achieving the organization's objectives.

Physical Requirements:

Physical requirements refer to the hardware, physical components, and materials used in data processing.

Network Requirements:

Network requirements provide an integrated communication infrastructure of wired and wireless communication and communication systems that enable individuals within the institutions to coordinate and integrate between units and facilitate access to data and information.

Requirements:

Human requirements provide qualified and specialized individuals in their job functions with the effective ability to perform their work (Said, 1998).

The researcher believes that Management Information Systems (MIS) help achieve success and excellence in the financial sector because they include the hardware, software, and technological infrastructure that assist in collecting, storing, analyzing, and distributing information in banks. They also enhance communication and collaboration among bank employees.

Al-Rajhi Bank:

Al-Rajhi Bank is one of the largest Islamic banks in the Kingdom of Saudi Arabia in terms of size and reach. The headquarters of Al-Rajhi Bank is located in the city of Riyadh and it operates under commercial registration number 1010000096, and is a member of the Al-Rajhi Bank Group, and is listed on the Saudi Stock Exchange (Tadawul) under the symbol [1120 RJHI]. Al-Rajhi Bank is the largest Islamic bank in the world, with assets worth 808 billion Saudi Riyals (\$ 216 billion), a paid-up capital of 40 billion Saudi Riyals (\$ 11 billion), and more than 20,000 employees.



Figure 2: Activities of Alrajhi Bank (٢٠٢٣).

The Alrajhi Bank Group offers its customers innovative financial products and services that combine the principles of Islamic banking on one hand, and the rapidly evolving market requirements on the other. These offerings are in compliance with the provisions of Islamic Sharia and play a vital role in bridging the gap between the financial needs of the 21st century and our firmly-rooted Islamic values (Al-Hashemi and Sadiq, 2020).

4. The Literary Framework and Previous Studies:

4.1. Organizational Culture :

It is the system of meanings, symbols, rituals, beliefs, and practices that change and develop over time, and become a distinctive feature of the expected behavior of the members of the organization. (Al-Qaryuni, 2005: 373)

The concept of organizational culture emerged from the management literature, and organizational culture is defined as the set of values, habits, traditions, knowledge, and rituals that enable those who work in the organization to be members of it. (A. A. Kennedy) and (Najm, 2004: 9)

The field of organizational culture is one of the areas that have recently entered the books of administrative sciences, as it is an important element in the formation of business organizations (Al-Umyan, 2002)

The definitions that dealt with the concept of organizational culture have multiplied, which reflects the extent of the breadth

and complexity of this concept and the multiplicity of its connotations. There are many scholars and researchers who have studied the concept and found that there are more than 250 definitions of organizational culture, (Sharma, 2002) as (Morsi, 2006: 13) pointed out that there are more than 162 definitions of organizational culture.

Govindarajan & Gupta (2000) defined it as "a social environment that drives all the formal and informal expectations of employees, selects the types of individuals who fit the organization, shapes their freedom to perform tasks without prior approval, and influences how they interact with others within and outside the organization".

Zawachi, Bell, and French defined it as representing the shared philosophies, ideologies, values, concepts, beliefs, attitudes, and norms that bind the group, including all these interconnected psychological characteristics that show the degree of harmony, agreement, and implicit or explicit social system, as well as how to deal with decisions and crises.

A study by Francois (2006: 425) indicates that the concept of organizational culture includes a set of basic principles that have been invented, discovered, and developed by the organization to solve its own problems, adapt to the external environment, and thus achieve internal integration. When the effectiveness of these principles is proven, they are taught to new members as the best way to understand and analyze problems.

Asfour (2008: 47) described organizational culture as a form of identification card for the organization in society, shaping its personality, and it must be unique and distinctive in the eyes of employees and customers. Both Hafez (2004: 14-15) and Griffin & Moorhead (1995) pointed out that the prevailing values in organizational culture help understand the acceptable and unacceptable behaviors and actions of employees in the organization.

The organizational culture model developed by Schein (2017) identifies five key dimensions that represent an integrated and interrelated framework for understanding and analyzing organizational culture, and which influence all aspects of organizational performance and behavior:

1. **Observed Behavioral Regularities:** This refers to the recurrent and organized behavioral patterns among individuals within the organization.
2. **Group Norms:**

These are the unwritten rules and standards that guide and govern the behavior of individuals within the organization.
3. **Espoused Values:**

This refers to the strategies, goals, and philosophies that the organization explicitly declares and communicates among its members.
4. **Formal Philosophy:**

This dimension relates to the fundamental principles and beliefs that guide the organization's policies and practices.

5. Rules of the Game:

This refers to the unwritten rules that govern the interactions between individuals within the organization.

The functions of organizational culture in banks (Al-Swidi, A.K. and Mahmood, R., 2011).

Organizational culture plays a vital role in the success of banks, as it contributes to guiding organizational behavior, enhancing institutional identity, fostering cooperation and integration among bank employees, promoting innovation and change, and enhancing performance and excellence. Here are more details on the functions of organizational culture in banks:

- **Guiding Organizational Behavior:**

Organizational culture helps determine the required behavior of employees in the bank. It defines the values and standards that employees must adhere to and guides them towards achieving the bank's objectives. (Zahra, 2013)

- **Enhancing Institutional Identity:**

Organizational culture helps strengthen the bank's institutional identity. It defines the values and beliefs that distinguish the bank from others and contribute to building a strong and distinctive image of the institution.

- **Promoting Cooperation and Integration:**

Organizational culture works to enhance cooperation and integration among bank employees. It encourages cooperation

and positive interaction among employees and fosters a sense of teamwork and collective work.

- **Promoting Innovation and Change:**

Organizational culture contributes to promoting innovation and change in the bank. It encourages the acceptance of challenges and changes and fosters a spirit of innovation and continuous development.

- **Enhancing Performance and Excellence:**

Organizational culture contributes to enhancing performance and achieving excellence in the bank. It promotes a commitment to quality and excellence, and encourages the achievement of set goals and the improvement of institutional performance.

4.2. Management Information Systems:

Management Information Systems (MIS) is the means of crystallizing the business vision of organizations that rely on secondary systems to provide accurate information to assist in making administrative decisions that lead to optimism about all project objectives, as well as to assist management in the process of decision-making, implementation, and control.

Bassiouni (2010) defined it as a set of procedures that involve the collection, processing, storage, distribution and retrieval of information in order to support the decision-making process and control within the organization.

Al-Tai (2008) sees it as a set of interrelated or interacting elements that work to collect various data and information, process, store, broadcast and distribute it to beneficiaries in order to support the decision-making process and ensure control over the organization.

Several reasons paved the road for the emergence of information systems (Ayman, 2013). These reasons include but not limited to:

- The administrative problem: The essence of the administrative problem lies in making decisions that determine how the limited resources are distributed for unlimited use, as improper management does not have the ability to control the external factors that affect it, but can mitigate their negative impact. These decisions are made under conditions characterized by lack of information, uncertainty, and difficulty in future vision, all of which require an effective information system to help management accurately estimate future probabilities and make sound decisions.
- The shift towards division of labor: The division of labor has led to the exchange of information, as the organization is now divided into many different departments (procurement, production, marketing, finance, human resources, etc.). In order to perform activities effectively, the process of exchanging information between these departments and

sections must take place horizontally between departments at the same level, and vertically between departments at different levels, to achieve the set objectives. Therefore, the greater the functional division of labor, the greater the importance of exchanging information between the various departments, and thus the need for information systems arises.

- Scientific and technological progress: Scientific and technological developments in production make the production process more complex. Projects have become large in scale and require significant financing. All these factors have made decision-making more difficult, as every wrong decision results in significant losses. Therefore, the organization needs a huge amount of accurate, useful, and reliable information that must flow regularly between the multiple administrative centers in the organization.
- Globalization and international and local competition: Contemporary economies are characterized by openness to the world, i.e., they are based on a market economy.

The most common components of Management Information Systems (as per Saad, 2016) are:

1. Hardware:

It refers to all the tangible components that can be physically touched, including the equipment used for data

input, storage, transfer, handling, retrieval, reception, and distribution to users. This includes computer devices and all associated hardware such as the central processing unit, motherboard, monitor, and others. This includes:

- a. Computers of various types (desktops, laptops, mobile phones, tablets)
- b. Computer devices (memory, central processing unit, etc.)
- c. Input devices (keyboard, microphones, mouse, etc.)
- d. Storage devices (optical discs, external RAM, etc.)
- e. Output devices (printers, speakers, etc.)

2. Software:

It is a detailed set of instructions and commands prepared by the programmer to direct the computer hardware to work in a specific way to achieve desired results. Software contributes to information processing, recording, and presenting useful outputs for work performance and process management.

3. Human

Resources:

These are the personnel responsible for maintaining the systems and network, and resolving issues faced by information systems users. Every organization using an information system needs employees to operate and manage this system. Providing skilled personnel is a requirement for system implementation, which is achieved through training in specialized academic institutions.

4. Networking:

The application of computer networks has spread across various departments and organizations due to the use of computers and their peripherals in different domains, with the aim of improving work efficiency and speed by facilitating communication between employees, clients, and suppliers.

The characteristics of management information systems (Hamed and Al-Sayrafi, 2006, p.115):

- An integrated system that links several different functional areas.
- A system built on computer hardware for data input, processing, and conversion into useful information for decision-makers in the organization.
- A system that supports the functions of planning, control, and operations, which are the required activities in all areas of activity.
- A system that helps managers in the decision-making process to solve structured and unstructured routine problems.
- A system that describes all the internal processes of the organization, compares them to the plans, and shows the areas that require improvement and modification.

4.3. The Relationship Between Management Information Systems and the Use of Organizational Culture

The world has recently witnessed developments in various fields, which has required continuous development and updating and reliance on information systems in work, as they are among the requirements of progress to keep pace with developed countries. Modern information technology and its advanced applications have become a contemporary administrative reality. Therefore, contemporary institutions and organizations, including Faisal Islamic Bank, have been affected by these developments and have sought to change their structures, transactions, and performance standards in an effort to provide services characterized by accuracy, speed, transparency, and integrity. All of this has affected the culture of employees and their performance and creative decisions, as the decision-making process is directly related to the management functions of planning, organization, direction, and control. With the recent developments that require elements of speed, accuracy, and mastery in performance and making the best decision, the need has become urgent to benefit from management information systems at work.

This requires that the culture of the organization or institution be supportive of this transformation and development, as it has a strong support in the success of any strategy and any new plan, with the aim of improving and developing performance. The existence of a suitable organizational culture helps the organization to accept the latest changes and developments.

4.4. Functions of organizational culture and its relationship to information systems in Al Rajhi Bank

The importance of organizational culture and its impact on the possibility of using and benefiting from management information systems lies in the fact that it sets the rules of behavior, enhances the sense of loyalty and belonging, follows up on performance, and holds deviations accountable through habits, customs, and practices that are entrenched over time to help shape ways of thinking, work methods, and decision making.

According to Tawfiq (2002: 279-280), the role of organizational culture is not only to improve the behavioral pattern of employees by anticipating events, understanding their different situations, and overcoming any challenges, whether internal or external, or creating a suitable organizational climate for work and encouraging teamwork, but it also extends to identifying ways to develop and improve the administrative and functional performance of the institution.

Makawi (2010: 23) believes that the use of organizational culture and information systems leads to improving the quality of services provided, achieving transparency in dealings and work completion, facilitating procedures for obtaining services, improving the efficiency of service delivery, and reducing bureaucracy. Additionally, management information systems

have become playing an important role in increasing the efficiency and effectiveness of job performance, improving the level of performance of banks and institutions, and simplifying their procedures to provide services to citizens or beneficiaries in an appropriate manner, while making data and information available to them.

Information systems also provide an opportunity to open new communication channels between departments and employees, which helps remove many administrative obstacles and obstacles, achieve maximum benefit for their clients, achieve efficiency and effectiveness in providing services to beneficiaries and customers, and employ information technology to support and build a positive organizational culture among employees (Mahdi et al., 2016). This in turn provides the beneficiary with information immediately, in addition to making creative decisions, reducing obstacles to decision-making, reducing administrative corruption, achieving the principle of equality among the institution's public by following a unified approach, and reducing the emergence of the factor of mediation and personal relationships and monitoring the point of decision-making (Hansen, 2007).

5. Literature Review

The studies that reviewed the independent variable of management information systems are as following:

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- Study by Asaad (2024) titled "The Role of Management Information Systems in Evaluating the Performance of Employees in Hotel Organizations in the City of Damascus", aimed to identify the role of management information systems in evaluating the performance of employees in five-star hotel organizations in the city of Damascus, by studying the impact of one of the requirements of management information systems, represented in human resource information systems, and its effect on evaluating employee performance. The study data was collected through a questionnaire prepared for this purpose, consisting of a set of questions related to the study variables, and distributed to a simple random sample of 65 individuals working in the human resources department. A set of appropriate statistical methods were used for data analysis and processing, and the main findings were: the existence of an objective measure that most of the hotels under study can rely on in evaluating employee performance, and that most of the hotel organizations under study have human resource information systems software capable of providing periodic and comprehensive reports, and the existence of a strong positive correlation with statistical significance between management information systems and employee performance evaluation.
 - Study by Al-Kharusi, Zaid bin Khamis bin Ali, et al. (2022) titled "The Impact of Management Information Systems on the Administrative Performance of Government

School Principals in the Sultanate of Oman", aimed to identify the impact of management information systems on administrative performance in schools in the Sultanate of Oman, on a sample of 313 school principals and their deputies from four educational governorates (North Al-Batinah, South Al-Batinah, Muscat, and Ad-Dakhliyah). The descriptive analytical approach was used. The results of the structural equation modeling analysis indicated a direct relationship between management information systems and administrative performance, where the path value between them was 0.39 and had a positive direction. The study also revealed the moderating effect of experience on the relationship between management information systems and administrative performance. The study recommended the need to conduct continuous evaluation among employees in government schools at the Ministry of Education in the Sultanate of Oman, take their opinions and observations related to management information systems, and make adjustments to it according to the opinions of most schools.

- The study by Asiri (2022), titled "Availability of Information System Requirements and Their Impact on Achieving Performance Efficiency in the Educational Administration in the Asir Region", aimed to clarify the extent of availability of administrative information system requirements and their impact on achieving the efficiency of

the performance of employees in the educational administration in the Asir region. To achieve this goal, the descriptive approach was used. The study sample consisted of (200) employees in the educational administration in the Asir region, distributed according to variables (educational qualification / length of service / job level / age). The results of the study revealed that there is a high level characterized by the availability of the dimensions of administrative information systems in the field of education management in the Asir region, which indicates the use of the method of education management in the Kingdom of Saudi Arabia as a whole, especially the Asir region, for administrative information systems represented in (material foundations, human foundations, in addition to software foundations, and organizational foundations). There is an impact of the availability of the requirements of the dimensions of the field of administrative information systems (physical / human / software / organizational) on the field of performance efficiency, i.e. (performance cost, quality and timeliness). The study also found that there were no statistically significant differences related to the impact of the use of administrative information systems in the field of education management in the Asir region on the extent of performance efficiency due to demographic variables such as educational qualification, length of service, job level, and age group.

- The study by Hamed Mahmoud Al-Alwan and Zaid Issa Zyadat (2020), titled "The Effect of Management Information Systems on the Quality of Administrative Decision-Making from the Perspective of Decision-Makers in Jordanian Banks", aimed to identify the impact of management information systems (application requirements, reducing organizational obstacles, and decision support) on the quality of administrative decision-making (problem diagnosis, finding alternative solutions, implementing and monitoring the decision, and evaluating the results) in Jordanian banks from the perspective of decision-makers. The study used the analytical survey method, and the study population consisted of managers of Jordanian banks operating in Amman and their branches. The study reached several results, including a high degree of the role of management information systems in supporting decision-making in Jordanian banks. The results also indicated that management information systems (application requirements, decision support, and reducing organizational obstacles) have an impact on the quality of administrative decision-making (problem diagnosis, finding alternative solutions, implementing and monitoring the decision, and evaluating the results) at the level of significance ($\alpha \leq 0.05$) in Jordanian banks from the perspective of decision-makers. The study recommended working on intensifying training courses for decision-makers in order to keep pace with the developments in management information systems and their application.

The studies on the dependent variable of organizational culture are as following:

- The study by Abu Al-Nil (2024), titled "The Impact of Organizational Culture on the Efficiency of Implementing Digital Transformation in the Official Egyptian Tourism Authorities", aimed to demonstrate the level of prevailing organizational culture and identify the requirements for implementing digital transformation in the official tourism authorities in Egypt, as well as to clarify the nature of the relationship between the two variables. The research sample was selected randomly, and it consisted of (116) executive officials working in the Egyptian tourism authorities. The results of the study showed that the ranking of the dimensions of the prevailing organizational culture in the Egyptian tourism authorities came in descending order, where the first place was occupied by the dimension of organizational flexibility, followed by the level of cooperation, the level of participation, the level of tolerance towards failure, the level of innovation, the level of openness to change, the level of focus on customers, the level of desire to learn, the level of risk awareness, the level of entrepreneurial efforts, and the level of trust, while the level of communication came last. The results also showed a positive and statistically significant correlation at the significance level $\alpha \geq 0.05$ between the level of

organizational culture and the efficiency of implementing digital transformation in the government tourism sector. The study recommended that managers and officials in the Ministry of Tourism and its affiliated authorities adopt strategies to spread the organizational culture in order to develop intellectual capital, as it plays an effective role in bringing about development in the organizational structure.

- The study by (Al-Haddad, 2023), titled "Measuring the Role of Organizational Culture on Job Performance - A Field Study on Industrial Sector Institutions in the Sultanate of Oman", aimed to measure the impact of organizational culture on job performance in industrial sector institutions in the Sultanate of Oman, as well as to measure the existence of statistically significant differences between the views of management and employees in the industrial sector institutions under study. The study adopted the descriptive analytical approach and found that organizational culture helps with teamwork, and leads to increased productivity and performance efficiency. The culture of an organization based on innovation works to improve quality and encourages employees to come up with new ideas, which positively affects their performance. The study also found that a supportive organizational culture reduces employee absenteeism and resignations, which helps with stability and sustainability. The study recommended the need to focus on creating an

organizational culture that strengthens employee values and provides support to help them grow and develop.

- The study by Tembo (2021), titled "Organizational Culture Practices for Eliminating Performance Disparities between Local and Foreign Contractors", aimed to investigate the extent of organizational culture practices among contractors, both local and foreign, in the construction industry in Zambia. The results showed statistically significant differences in organizational culture between local and foreign contractors, particularly in terms of management style and dominant organizational characteristics. However, no differences were found in leadership styles and measures of organizational success.
- The study findings indicated that organizational culture plays a prominent role in determining the performance of construction firms. The researchers suggested that local contractors can improve certain aspects of their organizational culture in order to maintain their competitive edge. Some of the areas that local contractors can focus on improving include:
 - Developing their management style
 - Enhancing the dominant characteristics of their organization
 - Improving their leadership styles
 - Enhancing measures of organizational success, such as improving job satisfaction levels and strengthening the financial performance of the organization. The study

concluded that by addressing these aspects of organizational culture, local contractors can better compete with their foreign counterparts in the construction industry in Zambia.

- The study by Haitham Abdullah Farah (2020), titled "The Role of Organizational Culture in Improving the Performance Efficiency of Human Resources: A Case Study of Faisal Islamic Bank," aimed to identify the role of organizational culture in improving the performance efficiency of human resources, considering organizational culture as an independent variable measured through three sub-dimensions: (organizational values, organizational attitudes, and organizational beliefs). The study adopted the descriptive analytical approach and selected Faisal Islamic Bank as a case study. The study was conducted on a sample of 200 employees who responded to the study questionnaire. The study reached a set of results, the most important of which was the lack of a positive relationship between organizational culture and improving the performance efficiency of human resources in Sudanese banks. The most important recommendations of the study were to focus on the concepts of organizational culture in banks, pay attention to organizational values, and clarify the extent of their impact on the performance efficiency of human resources.

The studies that examined the relationship between MIS and organizational culture are as following:

- A study by Mudawi and Reda Mohammed (2023), titled: "The Role of Management Information Systems on the Organizational Culture of Employees: An Application to Faisal Islamic Bank in Sudan". The study aimed to identify the impact of the requirements of management information systems (physical, network, and human) as an independent variable and the elements of organizational culture as a dependent variable. The study used a descriptive analytical approach and a case study. The study population consisted of 360 employees of Faisal Islamic Bank, and the study used a convenient random sampling method. The study relied on a questionnaire as the main tool for data collection. Descriptive statistics (median, standard deviation, correlation) and analytical statistics (exploratory and confirmatory factor analysis and path analysis) were used. The results of the study showed a significant positive relationship between the requirements of management information systems (physical, network, and human) and the organizational values of the culture, while there was no significant positive relationship with the organizational attitudes of the culture. The study recommended the need to continue to improve the efficiency of the components of management information systems and maintain a positive and significant level of organizational culture, and also recommended the need to

apply the studies in other environments with different technical and organizational dimensions.

- The study by Al-Zoghbi and Abainat (2017), titled: "Integrating Organizational Culture into the Technology Acceptance Model in Using the E-learning System from the Perspective of the Faculty at Al al-Bayt University", aimed to test the Technology Acceptance Model (TAM) with the addition of organizational culture. The study population consisted of faculty members in the colleges and institutes at Al al-Bayt University, numbering 320 members. The data was processed, and the study hypotheses were tested using the AMOS software. The results of the study confirmed that the proposed and modified model on the TAM model is a theoretical tool that helps in understanding and interpreting the behavioral intention to use e-learning. The study found that there is no statistically significant effect of organizational culture on both the perceived usefulness and perceived ease of use of the e-learning system. There was also no effect of perceived ease of use on the perceived usefulness of the e-learning system. The study recommended that the university management should pay attention to enhancing the level of perception among employees towards the benefits realized from using technology at both the individual and organizational levels, and to enhance the employees' confidence in technology, by emphasizing the potential positive results and attempting to

subject employees to training courses to help them recognize the ease of use of these systems.

- The study by Ababneh and Shrafat (2014), titled "Analysis of the Role of Culture in Management Information Systems Studies", aimed to conduct a theoretical review of the role of organizational culture in the use of management information systems. The study relied on reviewing, critiquing, and expanding on the cultural dimensions developed by prominent scholars such as Hofstede and Hall. It presented the level of national and organizational culture and their role in shaping and developing the use of information systems. The results showed the important role of national and derived organizational culture as a key success factor for the use of information systems. The researchers also found that the use of technological information systems may not lead to positive results if the cultural values are ignored during the construction and use of these systems. They indicated that cultural values are an integral part of technology design and should be recognized before adopting and using technical systems in order to easily address the problems that may arise from their use. The study concluded that for a good level of acceptance and use of these systems, cultural dimensions must be taken into account before and during their use. The study proposed a new cultural dimension (traditional-modernity) that encourages

further research to verify its validity in describing the diverse nations in terms of their national culture.

- The study by Hu et al. (2012), titled "Managing Employee Compliance with Information Security Policies: The Critical Role of Top Management and Organizational Culture", aimed to identify the role of top management participation and organizational culture in shaping employee compliance behavior with information security policies. The study highlighted the extent of the impact of proactive involvement of top management on employee compliance behavior, beyond just relying on deterrent measures. It provided insights into how organizational factors, outside the realm of technological controls, shape information security compliance within the workplace. The study found that top management participation and organizational culture played a critical role in influencing employee compliance behavior.
- The study by Indeje and Zeng (2010) titled "Organizational Culture Implementation and Information Systems: A Structuration Perspective" aimed to identify the extent to which organizational culture affects management information systems and project implementation. It sought to identify the organizational factors that can influence information system implementation efforts. The study sought to determine whether organizational issues play a role in information systems on a broad scale.

Commenting on previous studies

1- Aspects of benefit:

- The previous studies contributed to the understanding and comprehension of the importance of this study, which revolves around clarifying the impact of the efficiency of information systems management requirements (physical, network, and human) in enhancing the organizational culture of employees in the Saudi banking sector.
- The current study benefited from similar previous studies in analyzing the results obtained to use them in directing the applied research and clarifying the potential relationships between information systems and organizational culture.
- The previous studies contributed to identifying the gaps and deficiencies in the knowledge related to the role of information systems in enhancing the organizational culture of employees in Saudi banks.
- Previous studies contributed to guiding the methodology used in the research. Previous studies can be reviewed to identify the best methodologies and tools used in similar studies and use them as a model for applied research on financial banks.
- Previous studies contributed to guiding the proposed recommendations in the research and using them as a

model to guide the proposed recommendations in the applied research.

- The previous studies contributed to finding some references and sources that the researchers did not have the opportunity to know and review before, and contributed to building some pillars of the theoretical framework of the study.

1- Key points of agreement

- The current study agrees with the study by Maddawi and Muhammad in identifying the requirements for implementing management information systems and their role in influencing the organizational culture of employees, but it differs in the location of application.
- The current study agrees with the study by Hu et al. (2012) on the need to entrench the organizational culture of employees through management information systems, as they have a strong impact on the efficiency of employee performance.
- The researcher believes that most of these studies emphasize the vital role played by management information systems in shaping a positive organizational culture among employees in various sectors.
- The current study agrees with the studies by (Indeje and Zeng (2010), (Tembo, 2021), (Ababneh and Shrafat, 2014), (Al-Zuobi and Abaineh, 2017), and (Mudawi and Reda Muhammad, 2023) on the effective mutual

influence between management information systems and organizational culture, as well as their role in improving employee performance efficiency and determining the strategic direction of the organization.

6. Analysis and Discussion

6.1. Descriptive Statistics for the Study's Statements

The study calculates the mean and standard deviation for each statement of the study's dimensions. The mean of each statement is then compared to the hypothetical mean of the study (3). Agreement with the statement is achieved if the statement's mean is greater than the hypothetical mean (3), and disagreement is achieved if the mean is less than the hypothetical mean.

The following table shows the mean, standard deviation, relative importance, and ranking of the statements that measure the study's dimensions, based on the responses of the respondents (Table 1).

Table 1: Descriptive Statistics of the Study Statements, prepared by the author.

| Study Statements | Descriptive Statistics | | | |
|-------------------------|------------------------|------|----------------|----------|
| | Range | Mean | Std. Deviation | Variance |
| Tangible Requirements 1 | 4 | 4.53 | .753 | .567 |
| Tangible Requirements 2 | 4 | 4.32 | .796 | .634 |
| Tangible Requirements 3 | 4 | 4.26 | .826 | .682 |
| Tangible Requirements 4 | 4 | 4.16 | .823 | .678 |
| Tangible Requirements 5 | 4 | 4.29 | .795 | .632 |
| Network Requirements 1 | 3 | 4.17 | .906 | .820 |
| Network Requirements 2 | 4 | 4.21 | .701 | .492 |

| | | | | |
|-------------------------------|---|------|-------|-------|
| Network Requirements 3 | 4 | 4.10 | .810 | .657 |
| Network Requirements 4 | 3 | 4.18 | .827 | .683 |
| Network Requirements 5 | 4 | 4.13 | .852 | .726 |
| Human Resource Requirements 1 | 4 | 4.30 | .781 | .610 |
| Human Resource Requirements 2 | 3 | 4.07 | .877 | .769 |
| Human Resource Requirements 3 | 3 | 4.14 | .800 | .640 |
| Human Resource Requirements 4 | 4 | 4.11 | .847 | .717 |
| Human Resource Requirements 5 | 4 | 3.95 | 1.008 | 1.016 |
| Organizational Values 1 | 4 | 4.31 | .802 | .644 |
| Organizational Values 2 | 4 | 4.06 | .881 | .776 |
| Organizational Values 3 | 4 | 4.15 | .863 | .745 |
| Organizational Values 4 | 3 | 4.06 | .816 | .665 |
| Organizational Values 5 | 4 | 4.08 | .918 | .842 |
| Organizational Attitudes 1 | 4 | 4.23 | .833 | .695 |
| Organizational Attitudes 2 | 4 | 4.12 | .812 | .659 |
| Organizational Attitudes 3 | 4 | 4.09 | .900 | .810 |
| Organizational Attitudes 4 | 4 | 4.03 | .941 | .886 |
| Organizational Attitudes 5 | 4 | 4.24 | .845 | .715 |

6.1.1. Descriptive Statistics for Statements of the Independent Variable Management Information Systems

1- Material requirements

- All the statements that express the material requirements axis have a mean greater than the hypothetical mean (3), and this

result indicates the agreement of the sample members on all the statements of the material requirements.

- The most important statement from the material requirements statements is the statement (There are suitable computer devices to accomplish the required work.) where the mean of the sample members' responses to this statement was (4.53) with a standard deviation (0.753).
- The least agreed upon statement from the material requirements statements is the statement (The technical means used are keeping pace with the bank's needs), where the mean of the statement was (4.16) with a standard deviation (0.823).

2- Network requirements

- All the statements that express the network requirements axis have a mean greater than the hypothetical mean, and this result indicates the agreement of the sample members on all the statements of the network requirements.
- The most important statement from the network requirements statements is the statement (The information network used allows the possibility of linking to related branch networks), where the mean of the statement was (4.22) with a standard deviation (0.702).
- The least agreed upon statement from the network requirements statements is the statement (The data available on the information network allows all employees to access it

easily), where the mean of the statement was (4.10) with a standard deviation (0.810).

3- Human Resources

- All the statements that measure the human resources dimension have an average that exceeds the hypothetical mean (3), and this result indicates that the sample members agree with all the statements of human resources.
- The most important statement from the human resources statements is the statement (Employees have the necessary skills and experiences to work on the information network), where the average of the sample members' responses to this statement reached (4.30) with a standard deviation (781.).
- The least agreed upon statement from the human resources statements is the statement (Users participate in the design and development of the system), where the average of the statement reached (3.94) with a standard deviation (1.007).

6.1.2. Descriptive statistics for the statements of the mediating variable Organizational Culture

1- Organizational Values

- All the statements expressing the organizational values axis have a meaning greater than the hypothetical mean, and this result indicates the sample members' agreement with all the statements of the organizational values axis.
- The most important statement in terms of agreement from the statements of the organizational values axis is the statement

(Employees work as a unified team to achieve the institution's goals), where the mean of the sample members' responses to this statement was (4.31) with a standard deviation (0.802).

- The least agreeable statement from the statements of the organizational values is the statement (The habits and traditions of the employees are in line with the bank's culture), where the mean of the statement was (4.05) with a standard deviation (0.815).

2- Organizational Attitudes

- All the statements expressing the organizational attitudes axis have a mean greater than the hypothetical mean, and this result indicates the sample members' agreement with all the statements of the organizational attitudes axis (Figure 3).
- The most important statement from the statements of the organizational attitudes is the statement (There is an orientation among employees to enhance their capabilities and skills in order to be able to innovate and develop work systems) where the mean of the sample members' responses to this statement was (4.23) with a standard deviation (0.833).
- The least agreeable statement from the statements of the organizational attitudes is the statement (The bank has work teams to solve the problems and issues facing the employees) where the mean of the statement was (4.03) with a standard deviation (0.941).

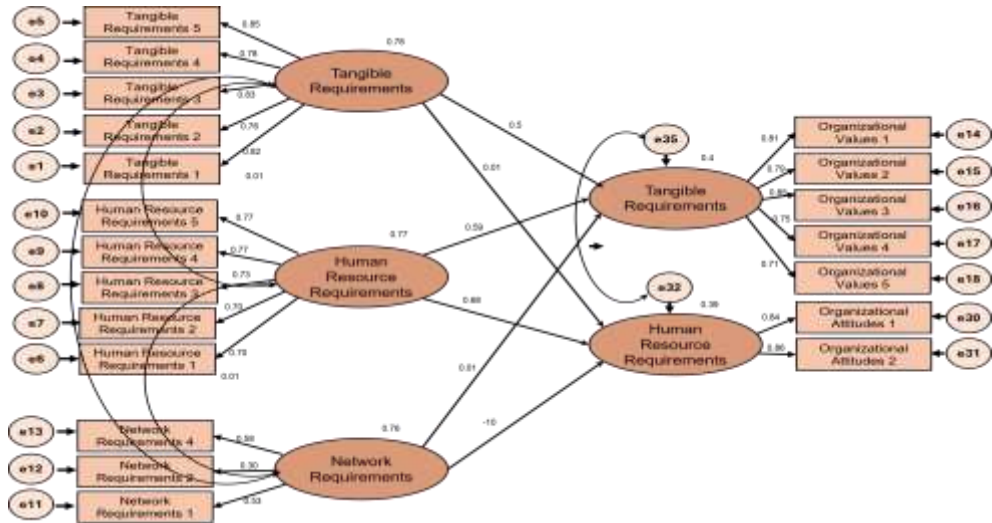


Figure 3: Path Analysis Between Management Information Systems and Organizational Culture. Source: Author from AMOS software, 2024.

Table 4: Path Analysis Between the Variable of Management Information Systems and the Variable of Organizational Culture. Source: Author from AMOS software.

| | | | Estimate | S.E. | C.R. | P |
|-----------------------------|--------------------------|---|----------|------|-------|------|
| Tangible Requirements | Organizational Values | → | .066 | .235 | .279 | .781 |
| Human Resource Requirements | Organizational Values | → | .682 | .149 | 4.596 | *** |
| Network Requirements | Organizational Values | → | .010 | .194 | .051 | .959 |
| Tangible Requirements | Organizational Attitudes | → | .010 | .283 | .037 | .971 |
| Human Resource Requirements | Organizational Attitudes | → | .877 | .179 | 4.909 | *** |
| Network Requirements | Organizational Attitudes | → | -.109 | .233 | -.467 | .641 |

6.1.3. Research Hypotheses

The Relationship Between the Requirements of Management Information Systems and the Dimensions of Organizational Culture.

The main hypothesis branches into the following sub-hypotheses:

- The main hypothesis is that there is a statistically significant relationship between the requirements of management information systems (physical, network, and human resources) and organizational culture (organizational values, organizational attitudes).

The following sub-hypotheses are derived from this

- Sub-Hypothesis 1: There is a statistically significant relationship between the requirements of management information systems (physical requirements, network requirements, and human resources) and organizational culture (organizational values).

From the above, we conclude that the sub-hypothesis of the study: There is a statistically significant relationship between the requirements of management information systems (physical requirements, network requirements, and human resources) and organizational culture (organizational values) is considered a valid hypothesis for the variable (human resources), while it is not considered a valid hypothesis for the variables (physical requirements, network requirements).

- Sub-Hypothesis 2: There is a statistically significant relationship between the requirements of management

information systems (physical requirements, network requirements, and human resources) and organizational culture (organizational attitudes)

From the above, we conclude that the sub-hypothesis of the study: There is a statistically significant relationship between the requirements of management information systems (physical requirements, network requirements, and human resources) and organizational culture (organizational attitudes) is considered a valid hypothesis for the variable (human resources), while it is not considered a valid hypothesis for the variables (physical requirements, network requirements).

7. Results.

The researcher concluded that there are several requirements for management information systems in enhancing the organizational culture of employees in the Saudi banking sector, including:

- Integration and coordination between the various information systems used in the bank: These systems must be integrated and capable of efficient communication and information exchange to achieve organizational integration.
- Providing a supportive, secure, modern, high-quality, and safe technological environment to provide an attractive work environment and enhance the organizational culture of bank employees.

- Developing the skills and competencies of employees in using information systems: Through continuous training and development programs for employees to develop their capabilities in using modern technologies.
- Involving employees in the development and updating of information systems: Engaging employees in the development and update process contributes to enhancing the sense of ownership and organizational belonging.
- Providing an effective incentive and motivation system for using information systems: By linking employee performance to the extent of their use of electronic systems and applications.
- Supportive administrative leadership for the use of technologies: The support of senior management for the use of information systems and motivating employees to use them has a significant impact on enhancing the organizational culture.
- The researcher believes that management information systems can enhance organizational culture by facilitating communication, information exchange, and shaping employee behavior. Factors such as senior management participation, innovative culture, and customer-oriented practices play a crucial role in influencing employees' attitudes, perceptions, and performance within the organization.

The Study Recommendations

1. Implement continuous training and development programs to develop employees' skills in using modern management information systems.
2. Focus on employees to enhance and develop their capabilities, ensuring that the bank achieves effective performance that increases its competitiveness compared to other banks.
3. Involve employees in the processes of developing and updating information systems to enhance the sense of ownership and organizational belonging.
4. Design effective incentive and motivation systems linked to the use of information systems to enhance the culture of digital use in banks.
5. Pay attention to the research proposals and problems faced by employees when using management information systems.

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