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IMPACT OF INFORMATION ON BANKING SERVICES

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Abstract

This study examines the role of information technology in enhancing the quality of banking services, with a specific focus on Algerian financial institutions. The research outlines an intellectual framework highlighting the critical importance of utilizing information technology effectively to access and manage necessary data, which is fundamental for fostering a competitive advantage. The analysis emphasizes the increasing awareness of the role that human skills and intellectual capital play in the evolving future economy. These elements are identified as key factors for the successful development of organizations. However, the study acknowledges the challenges Algerian banks face in estimating the direct impact of information technology on performance. Success in the financial sector is not solely determined by adopting advanced technologies, but rather by their appropriate application and integration. A significant obstacle for Algerian banks is the lack of skilled professionals capable of leveraging these tools effectively. The findings highlight the need for targeted investments in human capital to elevate the quality of products and services to a level comparable with that of developed nations. The study concludes by stressing the strategic alignment of information technology with institutional goals as a pathway to achieving sustainable growth and competitive service delivery.

Keywords: *Information Technology, Banking Services, Intellectual Capital, Quality Management, Skilled Workforce.*

1 INTRODUCTION

Banks today operate in a highly competitive environment due to globalization and openness to the outside world. In such circumstances, it is essential to adopt more modern concepts to keep pace. Information is one of them. Information has historically been a cornerstone of civilization and progress for nations and societies. There is a clear trend toward understanding the information's role in business success and societal development, and leveraging it for competitive advancement at individual, organizational, and community levels. Undoubtedly, there is a growing awareness of the importance of maximizing societal benefits from information usage, given its significant role in societal evolution.

Given the unique features of banking services, adopting such a concept is indispensable. It is the path to survival and continuity in the banking market while delivering high-quality services.

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These services have become an essential system that requires efficient management through various approaches and frameworks. Among these, information is a critical area of focus and discussion for researchers and scholars. Access to accurate and timely information empowers banking employees to make more effective decisions. This, in turn, improves performance levels and enhances service quality to meet the desired standards.

Algeria's banking system is experiencing declining performance levels. To address this, it has become necessary to adopt new methods and principles to revitalize the sector. This sector plays a vital and strategic role in driving economic development. It is also crucial for keeping pace with growth and progress.

1.1 Research Problem

In recent years, particularly with the exponential growth of information and communication technology, terms such as "knowledge" and "knowledge economy" have gained prominence. Against this backdrop, the research problem can be articulated in the following main question:

To what extent does information contribute to improving the quality of banking services?

From the primary question, several sub-questions arise, whose answers will address the main research problem:

- What is the quality of banking services, and how is it measured?
- To what extent do banks value information?
- What is the role of information in banking services?

1.2 Research Hypotheses

Based on the above, the following hypotheses are proposed for discussion and evaluation:

- There is no statistically significant impact of information on the quality of banking services, as service quality is primarily evaluated based on the type of service and the way it is delivered.
- Evaluating the quality of banking services can only be based on the client's expectations.
- Agencies do not adopt an information management approach, and their employees cannot define the concept.

1.3 Research Objectives

The study aims to address the subject by achieving the following points:

- Presenting a conceptual framework for the quality of banking services.
- Highlighting the overall importance of information.
- Exploring the extent to which institutions value this subject.
- Emphasizing the significance of information in banks and its role in improving the quality of banking services.

1.4 Importance of the Study

This study's significance lies in demonstrating how to prioritize information as a fundamental component in measuring organizational capabilities. It enables banking sector employees to handle various emerging issues by equipping them with sufficient decision-making efficiency and effectiveness.

1.5 Research Methodology

The descriptive-analytical method was adopted To address the research problem and test the proposed hypotheses. In the theoretical section, key concepts and terms related to the subject were examined to identify the research elements, aligning with the nature of the study.

1.6 Previous Studies

1. *A study by Neal Pollock* (Evaluating Knowledge Performance and Technology Used by Public and Private Organizations, 2002)
   The study aimed to evaluate the performance of knowledge management and information technology used by public and private organizations. It sought to assess the overall performance of knowledge management and IT to achieve noticeable success and improve work performance and outcomes. The descriptive-analytical method was used, and the results revealed that IT management performance in the studied organizations was still in its infancy. Most efforts to achieve organizational goals were at the level of small-scale entities. The study recommended training end-users of IT systems and encouraging them to establish new metrics to

evaluate the quality and support of IT strategies for internal business needs.

2. A study by Al-Khawaldeh and Hunaiti (The impact of the use of information technology on creativity in Jordanian public institutions, 2005) aimed to identify the effect of IT usage on administrative creativity in Jordanian public organizations. A questionnaire was designed and distributed to a sample of 184 individuals. The SPSS statistical package was used to analyze the data, employing descriptive statistical methods to examine the sample's perceptions regarding IT dimensions and administrative creativity. Regression analysis was used to test the impact of independent variables on the dependent variable, along with one-way ANOVA. The results indicated:
   - A statistically significant relationship between IT usage dimensions (system programs, suitability of system information, information integration, productivity, and training) and administrative creativity.
   - There is no statistically significant relationship between demographic / functional variables and administrative creativity, except for work experience.
3. A study by Hussein (Information Technology and Its Impact on Improving the Level of Hotel Service Performance: An Applied Study in Al-Sudair Hotel, 2022) aimed to determine the impact of information technology (IT) on hotel service performance. It was conducted on a sample of 50 employees at Al-Sadir Hotel. The research utilized a questionnaire as the primary data collection tool, supplemented by personal interviews. Several statistical indicators were used, including the arithmetic mean, standard deviation, correlation, and F and t-tests, to assess the impact of the independent variable on the dependent variable.

   The study concluded that the hypothesis suggesting a causal relationship between the two variables was not supported. It highlighted low levels of IT utilization in the hotel, inadequate skills among its human resources, limited reliance on internal networks, and a lack of cooperation between employees and the organization in building databases.
4. A study by Ghalem and Quraishi (The Role of Information Technology in Supporting and Activating Customer Relationship Management, 2011) aimed to identify the role of IT in supporting and activating customer relationship management (CRM). It covered IT, CRM, the steps necessary to establish an electronic CRM strategy, and the impact of IT on CRM. The study found the following:
   - Organizations' use of IT enables them to activate CRM processes, fostering lasting customer relationships.
   - IT empowers organizations to identify and meet all customer needs and desires.
   - Adopting a CRM program helps organizations achieve tangible financial results by leveraging various customer interactions, retaining customers for extended periods, and gaining essential customer knowledge that distinguishes the organization.
   - Implementing a CRM program requires organizations to reengineer their business processes to focus on customers and maximize their benefits.
   - CRM has become essential due to the widely accepted principle that acquiring a new customer costs five times more than retaining an existing one.

2 CONCEPTUAL FRAMEWORK OF INFORMATION SYSTEMS

Amid rapid transformations, information today is considered a fundamental resource. Organizations striving for progress compete to be the first to acquire the right information. Due to the fast-paced developments in the economic and technological sectors, organizations must adapt to external changes. Managing information efficiently is a cornerstone and a strength for any organization. Its strategic significance lies in empowering decision-makers to function efficiently, enhancing organizational operations and activities, and boosting the organization's ability to formulate precise plans, policies, and strategies that drive the achievement of its goals.

Data serves as the raw material for any information system, while information is processed data ready for use, assisting decision-making.

2.1 Data and Information

We live in the era of information or the information revolution, where information has become the

foundation for decision-making, whether at a macro level for policy formulation or a micro level for organizational strategy development. This section will address:

1. The concept of data and information.
2. Characteristics of data and information.
3. Sources of information.
4. Types and importance of information.

2.1.1 The Concept of Data and Information

2.1.1.1 The Concept of Data

Data is the raw material from which information is extracted. It forms the basis upon which management depends, converting it into actionable information.

Definition: Data is a collection of unorganized facts, possibly in numbers, words, or symbols that lack relationships or real meaning and do not influence the recipient's behavior. Data is processed to convert it into useful information for decision-making. In its raw form, data has no significant implications (Maloukhiya, 2006).

2.1.1.2 The Concept of Information

Definition: Information is "organized data available at a specific time and place, enabling decision-makers to take the necessary action. It is the result of data processing." (Munir, 2012)

Another definition states that information is "data that has been classified and organized in a way that allows for its use and benefit. Consequently, information has meaning and influences the reactions of its recipients." (Muhammad, 2005)

Thus, data is the raw material necessary for producing information. Applying the concept of systems, data represents the input processed to produce output, i.e., the information generated by the system (Basyouni, 2010).

2.1.1.3 Distinguishing Between Data and Information

The distinction between data and information is relative, depending on their utility. What may be considered information for one person could be data for another. The differentiation depends on whether the data can support decision-making. If a person believes the data is suitable for aiding decision-making, it is considered information. Otherwise, it remains raw data, awaiting further refinement to contribute to decision-making (Deeb, 2010).

2.1.2 Characteristics of Information and Data

Attributes of Information (Al-Tani, 2005)**:**

- *Relevance*: Information must be relevant for a specific purpose at the time it is needed.
- *Comprehensiveness*: Comprehensive information provides recipients with all they need to know about a given situation.
- *Timeliness***:** Timely information is available when required.
- *Clarity***:** Information must be clear and free of ambiguity.
- *Accuracy***:** Information should be error-free in collection and recording.
- *Flexibility***:** Information should be adaptable to meet the various needs of users.
- *Measurability***:** The ability to quantitatively measure information generated by formal information systems.

Characteristics of Data (Owais, 2011)**:**

- Data should be accurate, reflecting reality and expressing the truth.
- The relative importance of data must exceed its acquisition cost.
- Data should be adequate.
- Data must be current to ensure usability.
- Data must be consistent, without contradiction or conflict.
- Data should be comprehensive, neither excessively brief nor overly detailed.

2.1.3 Sources of Information

Information sources are categorized into two main types (Owais, 2011):

- *Internal Sources*
  These are either oral or documented:
  - *Oral Sources:* Discussions among workers, meetings, or consulting colleagues within the same or other organizations. These oral interactions are considered an internal source of data.
  - *Documented Sources,* including:
  - *Primary Sources* include academic journals, conference proceedings, university dissertations, laws, and regulations. These sources are often authored by experts and provide direct access to information.
  - *Secondary Sources* include dictionaries, government reports, and printed

publications. These sources are pre-defined and ready for use, offering summarized information.

- *External Sources*
  These are official data collected outside the organization, often tailored to specific needs. Additionally, informal internal data may contribute to the decision-making process.

2.1.4 Types and Importance of Information

Information can be classified in a few ways. The French legal perspective categorizes information into three types:

1. *Nominal Information*, divided into:
   - *Objective Information* pertains to the individual receiving it, such as name, social status, residence, and criminal record**.**
   - *Personal Information***:** Referring to others but related to the recipient's context.
2. *Intellectual Works*: Information protected by intellectual property laws, whether related to literary, artistic, or industrial property.
3. *Publicly Available Information*: Information accessible to everyone without ownership, such as stock market reports and weather forecasts.

Another classification divides information into:

1. *Formal Information*: Officially provided through standardized procedures, directly relevant to decision-making.
2. *Informal Information*: Widely used in management activities, often personal, conveyed orally, and may include expectations and rumors. This type is excluded from computerized systems due to its unstructured nature.

Information is important because of:

1. It is essential for building societies and making decisions; without it, societies follow rather than lead.
2. A major area for substantial investments, provided they occur in a legally regulated environment ensuring protection.
3. In public administration, administrative information is a key determinant of efficiency.
4. It is crucial to provide decision-makers with accurate and appropriately quantified information to meet their needs.

2.2 Introduction to Information Systems

In today's rapidly changing business environment, where quick decisions are essential, information systems have become vital for institutions, serving as a resource for achieving future objectives and making successful decisions. The design of effective information systems is critical for analyzing an organization's internal and external environments, identifying strengths and weaknesses, and leveraging information as a strategic asset.

2.2.1 Concept of Information Systems

Before delving into the notion of information systems, it is important to understand the general concept of a system and its components.

2.2.1.1 Nature of a System

A system is a collection of interconnected resources (people, equipment, machines, funds, records, etc.) that interact within a specific framework, functioning as a unified entity to achieve one or more objectives in a given environmental context (Al-Taher, 2011).

The components of a System are:

1. *Input***:** External resources, including human resources, equipment, data, and information.
2. *Processing:* Transformative operations that convert inputs into outputs.
3. *Outputs:* Tangible or intangible products resulting from processing, including information. Outputs of one system may serve as inputs for another.
4. *Feedback:* Corrective information enables plan adjustments, ensuring efficiency and goal attainment.

2.2.1.2 Nature of Information Systems

The modern world is characterized by numerous interconnected systems, such as communication, economic, political, and legal. Among these are management information systems, defined as follows:

- *Definition 1* (Munir, 2012)*:* "A set of electronic components that collect, analyze, publish, and operate data and information to answer specific inquiries."
- *Definition 2* (Supattra, 2007)*:* "A coordinated and comprehensive set of subsystems that integrate rationally to transform data into

information in various ways to enhance productivity, aligning with managerial patterns and agreed quality standards."

- *Definition 3* (Hugues, 2000)*:* "An information system, whether manual or automated, is a communication process involving the collection, processing, storage, and transmission of data to relevant individuals within the organization to provide necessary information for decision-making."
- *Comprehensive Definition:* An information system supports management by enhancing administrative functions and organizing operations. It converts inputs into outputs to achieve organizational goals and success. It is an integrated system relying on human-machine interaction (e.g., computer systems).

2.2.2 Objectives of Information Systems

Information systems, in their various types, aim to achieve specific objectives, which can be summarized as follows (Al-Hazaymah, 2009):

1. *Cataloging Data Sources*: Information systems aim to identify and list all available sources of data and information, requiring an accurate survey of these resources.
2. *Providing Periodic Reports***:** These systems generate regular reports for decision-making authorities, including essential data and information needed for administrative decisions.
3. *Ensuring Precise Monitoring*: Information systems provide feedback to decision-makers, facilitating comprehensive oversight of administrative decision-making and implementation processes.
4. *Reducing Decision Errors*: Information systems help decrease the rate of errors in administrative decision-making.
5. *Supporting Future Planning*: These systems play a significant role in supplying public administration with the necessary information and data for developing plans.

2.2.3 Resources and Characteristics of Information Systems

2.2.3.1 Resources of Information Systems

An information system consists of five primary components that form the essential resources required (Al-Sabbagh, 2000):

1. *Human Resources*: Individuals are vital for the operations and procedures of all information systems, including users and technical specialists responsible for system operation and maintenance.
2. *Hardware Resources*: This includes all hardware and physical components used in data and information processes, such as computers, media devices, and computer peripherals.
3. *Software Resources*: Encompasses all the instructions required to process data, including operating systems and programs that direct the physical components of computers.
4. *Data Resources*: Raw facts recorded using specific symbols (words, letters, shapes, etc.), which can be referenced later.
5. *Network Resources*: Comprises communication technologies, long-distance communication tools, and various types of networks that connect the system to the outside world.

2.2.3.2 Resources of Information Systems

1. *Output Relevance*: This refers to how well the output of an information system aligns with the needs of decision-makers. The degree of alignment can be assessed by analyzing the system's informational attributes.
2. *Behavioral Alignment*: Information systems meet the needs of decision-makers across various functional areas, regardless of their differing personal decision-making styles.
3. *Support in Analysis*: Systems enhance decision-makers' abilities to handle information by utilizing statistical and mathematical models to solve problems, whether complex or semi-complex.
4. *Quick Retrieval*: Also referred to as 'timeliness,' this attribute ensures that delivering information outputs at the right moment helps reduce prediction errors and minimize alternative opportunity costs.
5. *Subsystem Design*: Dividing the system into meaningful subsystems allows for efficient execution as a whole and opens the way to address constraints effectively.
6. *Flexibility and User-Friendliness*: Systems should be built to accommodate future

changes, making them adaptable and easily accessible to a broad range of users.

7. *Integration*: The system should adopt a holistic methodology to cover all functional areas of the organization, producing meaningful and useful information.
8. *Streamlined Data Flow*: Integration in information systems avoids duplication and overlap in data collection and storage, consolidating similar functions and streamlining operations where possible (Al-Zangi, 2007).

2.2.4 Steps and Functions of Information Systems

Steps in designing information systems are (Basyouni, 2010):

- *Defining Information Needs*: Identify the problems that must be solved at all administrative levels.
- *Setting System Goals*: Users should establish system objectives based on information requirements, ensuring that decision-makers can operate the system effectively and efficiently.
- *Determining System Constraints*: Internal and external constraints, referred to as system boundaries, must be defined based on available resources and design flexibility.
- *Identifying Information Requirements and Sources*: Collect information that enhances managers' insight and understanding of critical areas such as problems and alternatives.
- *Developing Design Alternatives*: Explore conceptual designs and select the most suitable one to serve as a blueprint for system construction.
- *Preparing the Conceptual Design Report*: Present a summary of problems, objectives, and expected benefits, including potential organizational changes.
- *System Implementation*: Roll out the system to the organization.
- *System Evaluation and Selection*: Assess the system's performance and select the best options.
- *System Maintenance*: Ensure the system is continuously updated and functional.

The functions of an information system can be outlined as follows (Hussein A. H., 1997):

- *Data Collection*: This process involves internal organizational activities—such as generating reports, conducting meetings, and employing other methods—and external data gathering through techniques, e.g., interviews. The data is then entered into the system and stored.
- *Data Processing*: This entails transforming raw data into meaningful information through diverse processing techniques and computational methods. The processed data is then stored in databases.
- *Data Management*: This is the organizational unit responsible for storing, updating, retrieving, and organizing data into files and databases, ensuring they are kept up to date.
- *Data and Information Control and Protection*: This involves ensuring data accuracy through reviews and safeguards against manipulation or system breaches. Protection measures include user passwords and software that logs all actions performed on the data, including by whom and when.
- *Information Production*: This is the final step in data processing, where the required information is generated for system users. It may take the form of reports, templates, or indicators and is stored in databases for decision-makers in the organization.

3 QUALITY OF BANKING SERVICES

The presence of an information system alone is insufficient to ensure success. Such systems must exhibit specific characteristics, including timeliness, accuracy, comprehensiveness, and reliability. These qualities ensure the system's effectiveness and its optimal utilization across various organizational aspects.

The significance of banking services has grown as a key differentiator in the competitive landscape of banks and financial institutions. Outstanding service quality has become the primary factor distinguishing one bank from another, as banking service offerings are nearly identical across institutions. Consequently, the level of service quality has become a powerful competitive tool for ensuring growth and sustainability, particularly for banks.

3.1 Fundamental Concepts - Banking Service Quality

3.1.1 Concept of Banking Services

3.1.1.1 Nature of Services

Services are defined as intangible offerings that contrast with the tangible nature of goods. They are not visible but can be observed through their outcomes over time.

According to the American Marketing Association, a service is defined as "activities or benefits offered for sale or associated with a specific product" (Suriyah, 2008)Kotler defines a service as "an activity or benefit provided by one party to another, which is essentially intangible and does not result in ownership. The provision of the service may or may not be tied to a physical product" (Talib, 2010).

3.1.1.2 Banking Services

Banking services are defined as a set of activities and operations with both tangible and intangible beneficial components offered by banks. They are perceived by beneficiaries for their utility and value in satisfying their financial and credit needs, both present and future. Simultaneously, these services act as a source of profit for the bank through the reciprocal relationship between the parties (Al-Ajameh, 2005).

Banking services may involve a fee or be offered free of charge in some cases.

Based on these definitions, banking services encompass a variety of activities and operations provided by banks to cater to the needs of diverse customer groups.

3.1.2 Importance of Banking Services

The importance of services arises from their characteristics and role in daily life. Unlike goods whose consumption can often be delayed, services, particularly in the banking sector, require immediate utilization.

Banking services are the primary tools banks rely on to fulfill customer needs and achieve their goals. The success of any banking institution depends on its management policies for service programs. Furthermore, banking services impact other elements of the banking marketing mix, including pricing, promotion, and distribution channels. These services form the core of a bank's existence, around which the rest of the marketing mix is structured (Haddad, 2006).

3.1.3 Characteristics of Banking Services

Characteristics of Banking Services (Talib, 2010):

1. *Intangibility*: Services are intangible, meaning they cannot be seen, touched, or experienced before use. This presents a challenge for service providers to describe and portray their services effectively to prospective customers. However, adding tangible elements, such as the physical location of the service, the personnel involved, and the service delivery environment, can help mitigate the difficulties of marketing intangible banking services.
2. *Simultaneity*: Services are produced and consumed simultaneously. Banking services rely heavily on the provider, as such services necessitate shared expertise, tools, and processes. Customers often participate in designing the service, a feature especially relevant to banking. Thus, these services cannot be delivered by unqualified providers (Al-Bakri & Al-Rahoumi, 2008).
3. *Heterogeneity:* Maintaining a consistent level of service quality is challenging due to variables like timing, speed, and tools used. Banking services may vary between different institutions, among employees within the same institution, and even from the same employee at various times (Kader, 2008-2009).
4. *Geographic Dispersion:* Banking services are distributed through branches and agencies across various regions. Unlike industrial institutions that rely on specialized intermediaries, banks expand their market reach by opening new branches, enabling them to meet the needs of their customers more effectively. The location and selection of branches are crucial in banking service distribution (Hassani, 2010-2011).
5. *Non-ownership*: Consumers of banking services have the right to use the service for a specified period but do not own it, highlighting a fundamental difference between goods and services.
6. *Non-storability*: Like other services, banking services cannot be stored or saved for future use. They are produced and delivered upon demand.

7. *Unique Banking Characteristics* are:
   - *Balance Between Growth and Risk:* When banks offer loans, they assume risks. Striking a balance between business expansion and risk management requires robust monitoring measures.
   - *Demand Fluctuations*: Services cannot be stored, and while stable demand is manageable, fluctuating demand poses challenges in planning, pricing, promoting, and distributing services.
   - *Credit Responsibility*: Banks bear significant responsibility for safeguarding customer deposits and profits. Deposits form the primary funding source for banks and play a vital role in their profitability.

3.1.4 Types of Banking Services (Mariam, 2011)

Banking services can be categorized into the following groups:

1. *Customer-Oriented Banking Services*
   These services involve commission fees as remuneration for the bank and include:
   - *Deposit Services*: Banks accept various types of customer deposits, which can be categorized based on the depositor's ability to withdraw funds:
     - Current deposits.
     - Fixed-term deposits.
     - Notice deposits.
     - Savings deposits.
   - *Custodial Services*: Banks offer secure vaults for customers to store valuables, protecting them from risks such as theft or loss. Items are returned to their original physical condition.
   - *Check Collection Services*: A check serves as a payment and withdrawal instrument. It authorizes a bank (drawee) to pay a specified amount to a third party (payee) as directed by the issuer (drawer).
   - *Securities Safekeeping*: Banks provide secure facilities to safeguard customer-owned financial securities.
   - *Underwriting Services*: Banks frequently serve as intermediaries in facilitating stock subscription processes on behalf of companies.
   - *Foreign Currency Exchange*: Banks mediate the buying and selling of foreign currencies on behalf of their clients.
2. *Lending and Credit Services for Businesses*
   These services generate interest income for the bank and include:
   - *Loans and Credit Facilities*: Banks extend loans to individuals and businesses, ranging from short-term to medium-term and long-term loans.
   - *Commercial Paper Discounting*: is a form of banking credit where banks discount commercial papers to provide immediate liquidity.
3. *Investment in Bank Resources*

Banks allocate a portion of their financial resources to trade securities and other financial instruments to generate revenue.

Banking institutions often allocate a portion of their resources, alongside deposits entrusted to them, to invest in purchasing securities and generate profits.

3.1.5 General Influences on Service Delivery:

The factors influencing the design of banking service policies offered by a bank in the market can be divided into:

- *External Influences*: They include the following key aspects (Al-Taher, 2011):
  - The strength and activities of competitors.
  - Economic forecasts and future economic conditions.
  - The general commercial climate.
- *Internal Influences*: This category of factors includes the following dimensions:
  - The bank's capacity to provide new banking services or to modify and enhance existing ones.
  - The skills and experience of the bank's management and staff, as well as branch operations.

3.2 Service Quality in Banking

Issues related to service quality have garnered significant attention from researchers and academics, particularly banking marketers. Service quality in banking is considered strategically valuable because its study helps banks enhance the institution's reputation and

image among its clients. This, in turn, strengthens their position against competitors, reduces costs, and increases productivity, market share, and profitability, thereby improving banking performance.

3.2.1 The Concept of Banking Service Quality

Quality is a contemporary concept that emphasizes the delivery of distinctive products and services. Below are some definitions of quality (Al-Sakranah, 2009).

The International Organization for Standardization (ISO) defines quality as:

"The total characteristics of a material that determines its ability to meet stated or implied needs." (ISO, 2015)

It is also expressed as: *"The total characteristics of a product that enhances its ability to satisfy specific customer needs, or as a set of features and characteristics that strengthen satisfaction."* (Khaleq, 2010)

Others describe it as: *"A feature or set of features that distinguish one entity or service offered by a bank from its competitors."* (Mariam, 2011)

The American Society for Quality defines it as: *"The total attributes and characteristics that affect the ability of a product or service to meet specific needs and perform various functions aligned with the user's environment."* (Al-Sakranah, 2009)

Regarding service quality, Lewis Orledge & Michel define it as focusing on meeting needs and requirements and clarifying how they are sequentially organized based on customer expectations. Perceived service quality is the customer's judgment of the service, derived from comparing their expectations with their perceptions of the actual service performance (Khaleq, 2010).

This definition emphasizes that perceived quality is the customer's judgment, meaning that service quality should be defined from the client's perspective

3.2.2 Levels of Banking Service Quality:

Research has identified five levels of banking service quality:

- *Expected Quality*: The quality customers believe should exist.
- *Management-Perceived Quality*: The quality deemed appropriate by the service institution's management.
- *Standard Quality*: Defined by the service specifications.
- *Actual Quality*: How the service is performed.
- *Desired Quality*: What customers wish to experience.

Some scholars categorize service quality into the following three levels (Kortel, 2007):

1. *Organizational Quality*: Related to the organization's reputation and general image.
2. *Interactive Quality*: The outcome of interactions between employees within the organization and the customers.
3. *Physical Quality*: Pertains to the environment surrounding the delivery service.

Another classification distinguishes between:

1. *Process Quality*: Judged by customers during delivery service.
2. *Outcome Quality*: Assessed by customers after the service has been performed.

Some researchers suggest two levels of banking service quality (Deeb, 2010):

1. *Technical Quality*: This quality depends on bank staff possessing advanced knowledge and expertise in banking services and diverse procedures. It is particularly suitable for complex banking services such as contracts and pension plans, where technical knowledge is a critical requirement.
2. *Functional Quality*: This focuses on the service encounter and how services are delivered, requiring psychological interaction between the bank and its clients.

Bank management should aim to enhance the quality of its banking services by setting strategic goals for service quality, monitoring customer needs and expectations, measuring quality and customer satisfaction, reorganizing around the customer, redefining managerial roles, determining productivity benefits, reducing service costs, and building a solid foundation for customer loyalty.

Denton Keith identified principles guiding bank management (Mariam, 2011):

- Clear vision by the bank’s management, understanding, and respecting customer follow-up.

- Adequate support from bank management, alongside fostering a strategic banking environment.
- Understanding the banking business and its components, and using methods to improve service quality
- Demonstrating the need for innovation, attracting the right individuals, training them, qualifying and refining their skills, and establishing incentive and reward systems

3.2.3 Measuring Service Quality in Banking:

Scientific theories for measuring banking service quality rely on two main approaches:

1. *The Directional Approach*: This approach is based on the idea that service quality represents a directional concept that leads to satisfaction but is not synonymous with it. It is linked to the client's perception of the actual service performance. Although researchers implicitly acknowledge the importance of customer perceptions of service quality, they view service quality and customer satisfaction as distinct concepts.

   The common explanation for this difference is that service quality, as provided and perceived by customers, is a form of direction based on long-term cumulative evaluation. In contrast, satisfaction is a transient and fleeting psychological state. Other researchers argue that customers form their attitudes toward a service based on their previous experiences. Thus, attitudes adapt according to the level of satisfaction achieved through interactions with the service institution.

   Several studies have confirmed the efficiency of focusing on customers' perceptions of service performance to evaluate quality.

2. *The Gap Theory Approach*: This approach assesses service quality by measuring the difference between customer expectations and their perceptions of the service. Service quality is determined by the gap between expected service and perceived service (actual performance). In essence, delivering high-quality service requires meeting and continually exceeding customer expectations.

A comprehensive study indicates that perceived service quality ranges from optimal to acceptable. Service quality can be evaluated as follows:

- If expected quality exceeds perceived quality (actual performance), service quality is below satisfactory.
- If expected quality equals perceived quality, service quality is satisfactory.
- If the expected quality is lower than the perceived quality, service quality surpasses satisfaction and approaches optimal quality within the defined timeframe.

The gap model identifies seven types of gaps, emphasizing discrepancies between customer expectations and service delivery:

- *The Management Gap:* is the difference between what the banking institution's management believes customers expect and their actual needs.
- *The Standards Gap*: is the difference between management's perception of customer expectations and the service standards established to meet those expectations.
- *The Delivery Gap*: is the gap between the bank service delivery standards and the performance level achieved.
- *The Communication Gap*: is the difference between the service quality the bank promotes through advertising and other communications and the actual quality delivered.
- *The Perception Gap*: is the gap between the quality-of-service customers receive and how they perceive or interpret that quality.
- *The Interpretation Gap*: is the difference between the bank's promotional claims about service quality and how customers understand and believe those claims.
- *The Service Gap*: there is the overall difference between customer expectations of service quality and their experience with the service delivered.

3.2.4 Approaches and Methods to Improve Banking Service Quality:

To enhance the quality of banking services, the following steps should be taken (Murad, 2008):

1. *Continuous Use of Research and Studies*: Banks should enhance service quality by consistently utilizing research and studies to collect information on service roles and dimensions, establish performance standards, assess employee performance, and understand customer expectations and perceptions. This approach forms the

foundation of any effective service improvement program.

2. *Recruiting and Employing the Best Talent*: Banks should strive to select and employ the best individuals to deliver distinguished services.
3. *Focusing on Internal Marketing Programs*: Internal marketing involves treating employees as internal customers. When a bank values its employees as much as its external customers, it enhances employee motivation and satisfaction, which ultimately improves service quality, meets customer expectations, and fosters customer loyalty.
4. *Quickly Addressing Customer Problems*: The faster customer problems are resolved, the greater their satisfaction and loyalty to the bank. Satisfied customers act as advocates for the bank, recommending it to others.
5. *Educating Customers About Services*: Banks can enhance their credibility with customers by educating them about the services offered. Increased customer awareness of banking services leads to better decision-making and higher satisfaction.
6. *Developing a Quality-Driven Organizational Culture*: Achieving service excellence requires making quality a core belief among all bank employees. Quality should become an organizational value that fosters satisfaction and motivation.
7. *Emphasizing the Role of Quality Teams*: Quality teams consist of employees who can coordinate, work together, and strive for outstanding performance to create customer satisfaction.

3.2.5 Commitment and Administrative Dedication to Service Quality

The effectiveness and success of service quality improvement programs or customer care initiatives are contingent on a radical transformation in the organization's culture. This transformation must begin with senior management and extend to all operational levels. It requires the presence of effective leadership styles, as effective leadership at all levels serves as the cornerstone for the success of service quality programs.

4 CONCLUSION

Banking management has long sought to modernize and develop its methods to keep pace with the radical transformations occurring in the global economy, accompanied by the growing importance of information and the emergence of new measures of wealth. Amidst these changes, banking institutions are required to find alternatives to traditional management systems to address issues more effectively and tackle obstacles that hinder customer loyalty and satisfaction with the services provided, while also addressing employee dissatisfaction.

Overcoming these barriers is of utmost importance. It necessitates abandoning traditional administrative approaches and adopting more modern management concepts, such as giving due attention to information management and recognizing its role, along with focusing on human resources, in achieving efficiency and effectiveness in the long term.

However, implementing such an approach in banking institutions is highly challenging, as it requires competent and qualified intellectual capacities capable of dedication and innovation to achieve excellence in performance within a supportive environment.

Despite efforts to develop and modernize Algerian banks, challenges remain. These efforts include employee training initiatives, incentive systems, and advanced technologies to improve operations and provide necessary information for better-quality services. However, this study reveals that banking services have not yet met globally acceptable quality standards. Furthermore, the banking sector remains one of the economic sectors that most need a continuous flow of information. The study yielded the following findings:

- The agencies studied do not implement information management practices, and their employees cannot define the term *knowledge management* due to the absence of a culture related to this concept.
- Information is a crucial factor in achieving quality banking services. It provides customers with the necessary information, fostering trust in staff and enhancing the bank's image. This

influences customers' decisions to continue their relationship with the bank.
- Differences in how customers and management perceive banking service quality create challenges in establishing a unified framework for its measurement.
- The quality of banking services depends on the degree of customer participation and their ability to provide information that enables service providers to identify and meet their needs**.**
- The agency measures customer satisfaction based on complaints received from customers.

Based on the findings, the following recommendations are proposed:

- Algerian institutions must adopt knowledge management as a modern and advanced administrative approach characterized by efficiency and effectiveness, moving away from classical management methods to catch up with global advancements.
- Bank officials should be directed to the importance of information and its role in the banking sector.
- All necessary conditions and capabilities should be provided to facilitate the learning process within the banking institution.
- Bank officials and managers must prioritize establishing a department for information management and technology.
- Efforts should be made to attract and appoint highly qualified and skilled individuals and continuously develop their capabilities.
- Opportunities should be given to skilled employees to introduce improvements to certain banking operations.
- Bank employees should be sent on training missions abroad to acquire technology and enhance their informational capabilities.
- Attention should be given to internal customers (employees), as they ultimately possess the information that the institution seeks to disseminate among its members.
- Efforts should be made to stay updated and connected with modern technologies to enhance service efficiency.

WORKS CITED

Al-Ajameh, T. (2005). *Banking Marketing.* Jordan: Dar Al-Hamid.

Al-Bakri, T., & Al-Rahoumi, A. (2008). *Marketing Financial Services.* Jordan: Athraa Publishing and Distribution.

Al-Hazaymah, A. S. (2009). The Role of Information Systems in Decision-Making in Government Institutions: A Field Study in the Institutions of Irbid Governorate. *Damascus University Journal for Economic Sciences, 25*(1).

Al-Sabbagh, I. (2000). *Information Systems (Their Nature, Components).* Amman: Dar Al-Thaqafa for Publishing and Distribution.

Al-Sakranah, B. K. (2009). *Contemporary Administrative Studies.* Jordan: Dar Al-Maseera for Publishing and Distribution.

Al-Taher, A. M. (2011). *Introduction to management information systems (1st ed.).* Wael Publishing.

Al-Tani, M. A.-F. (2005). *Introduction to Management Information Systems.* Amman: Wael Publishing and Distribution.

Al-Zangi, H. A. (2007). Characteristics of Information Systems and Their Impact on Strategic Choice Determination: An Applied Study in Five-Star Hotels in Amman. *Jordanian Journal of Business Administration, 3*(2).

Basyouni, A. H. (2010). *Management Information Systems.* Cairo: Dar Al-Kutub for Publishing and Distribution.

Deeb, H. (2010). *Effectiveness of banking information systems in managing credit failure cases: Case study of commercial banks operating in Ouargla (master's thesis).* Ouargla, Algeria: Kasdi Merbah University.

Ghalem, A. D., & Quraishi, M. A. (2011). The Role of Information Technology in Supporting and Activating Customer Relationship Management. *Economic and Management Researches*(10), 133-158.

Haddad, A. (2006). *Strategies of Banking Marketing and Banking Services.* Jordan: Dar Al-Kitab Al-Hadith for Publishing and Distribution.

Hassani, A. K. (2010-2011). *The Reality of Marketing in Banking Institutions (master's thesis).* Oum El Bouaghi: Faculty of Economic, Commercial, and Management Sciences, University of Oum El Bouaghi.

Hugues, A. (2000). *Systeme d'information de l'entreprise, boeck universite.* Paris: de boeck.

Hussein, A. H. (1997). *Accounting information systems.* Al-Ishaa Library.

Hussein, Y. M. (2022). Information technology and its impact on improving the level of hotel service performance (an applied study in Al-Sudair Hotel. *Journal of Administration & Economics, 47*(85).

ISO. (2015). *ISO 9000:2015.* ISO.

Kader, D. A. (2008-2009). *The Implications of Banking Liberalization Policies on Algerian Banks and Their Strategies to Address Them (master's thesis).* Oum El Bouaghi, Algeria: University of Oum El Bouaghi.

Khaleq, M. A. (2010). *Financial and Banking Management.* Jordan: Osama Publishing and Distribution.

Kortel, F. (2007). *Service Marketing.* Jordan: Dar Kunooz Al-Maarifa for Scientific Publishing and Distribution.

Maloukhiya, A. F. (2006). *Management information systems.* Horus International Foundation.

Mariam, K. (2011). *Total Quality Management in Banking Institutions, (master's thesis).* Oum El Bouaghi: Faculty of Economic, Commercial, and Management Sciences, University of Oum El Bouaghi.

Muhammad, A. (2005). *Introduction to Administrative Information Systems.* Amman: Wael Publishing and Distribution House.

Munir, N. (2012). *Information System Applied in Management.* Algeria: Office of University Publications.

Murad, S. A. (2008). *Enhancing Knowledge Marketing to Address the Impacts of GATS* (First Edition ed.). Egypt: Arab Knowledge Office.

Owais, A. A.-N.-S. (2011). *Information systems and their role in administrative decision-making.* Alexandria: Dar Al-Fikr Al-Jamii.

Supattra, B. (2007). The Influence of Management Information Systems and Information Technology on Management Performance and Satisfaction. *7th Global conference of business & economics*, (pp. 1-22). Roma.

Suriyah, L. (2008). *The importance of banking marketing in improving customer relations.* Oum El Bouaghi: Faculty of Economics, Commerce, and Management Sciences, University of Oum El Bouaghi.

Talib, A. F. (2010). *Banking Marketing Mix and Its Impact on Customer Perception.* Jordan: Safaa Publishing and Distribution.

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