RESEARCH ARTICLE

Technological Advancements in Management and Their Impact on Economic Institutions: A Field Study on the Implementation of Management Technology in Algerian Economic Institutions – The Case of the Agricultural Bank for Rural Development in Adrar

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Abstract

Despite major advancements in information technology, many institutions still struggle to fully harness these developments and maximize their potential benefits. This issue is even more pronounced in developing countries due to their relatively recent adoption of management technology. This study aims to examine the impact of these technological advancements on organizational institutions, focusing specifically on the implementation of management technology at the Agricultural Bank for Rural Development in Adrar as a case study. The research evaluates the effectiveness of electronic fund transfer mechanisms within the institution and explores how various electronic management practices contribute to creating and sustaining a competitive advantage in Algerian economic enterprises.

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Introduction

Research Problem: Managerial innovation does not occur by chance; rather, it is the inevitable outcome of scientific principles and structured methodologies, including knowledge sharing and information accessibility. Many traditional management concepts have evolved, shifting the primary challenges for managers from overseeing personnel, finances, and administrative operations to managing continuous institutional change driven by information and communication technology. This transformation has positioned technology as a cornerstone of modern management.

The shift from traditional to contemporary management necessitated the emergence of electronic management, requiring specialized skills and competencies to maintain institutional order and enhance productivity. To address these challenges, the state has introduced various reforms and initiatives to improve and modernize its institutions. However, despite these efforts, Algerian institutions still struggle with effectively implementing modern management techniques and continuously seek to enhance their administrative systems.

This study aims to analyze the impact of technological advancements on organizational institutions by addressing the following research questions:

1. What is the concept of management technology, and what does electronic fund transfer entail?
2. What is the impact of technological change on institutional performance, and how does technology affect human resources within economic institutions?
3. How can economic institutions achieve competitive advantage through electronic management techniques?
4. To what extent does the Agricultural Bank for Rural Development in Adrar employ management technology in its operations and transactions?

Significance of the Study

Electronic management plays a crucial role in the governance of institutions, facilitating the transition to the digital era and keeping pace with scientific and technological advancements while moving away from traditional paper-based methods. However, implementing this approach is complex and requires comprehensive studies that consider both the material and human resource requirements of institutions.

Objectives of the Study

- To assess the extent to which Algerian economic institutions align with global advancements in modern management practices.
- To evaluate the effectiveness of electronic management implementation in Algerian economic institutions.

Research Methodology

Given the nature of this research, we employed a descriptive-analytical approach, which entails studying the phenomenon as it exists in reality, offering a precise description, and analyzing it both quantitatively and qualitatively.

Study Techniques

This study employed questionnaires with both open- and closed-ended questions to collect essential data. Additionally, interviews were conducted with key bank officials, including the Head of Human Resources and the Branch Manager. These interviews played a crucial role in refining the questionnaire and provided supporting evidence for analyzing employees' responses.

Scope of the Study

- **Geographical Scope:** The study was conducted at the Agricultural Bank for Rural Development in Adrar (BADAR), located east of the Postal and Telecommunications Center, west of the Directorate of National Education, north of Martyrs' Square, and south of Hyundai Motors.
- **Human Scope:** The study population comprised all 58 employees of the Agricultural Bank for Rural Development in Adrar. Due to the study population's manageable size, a comprehensive survey was conducted, encompassing all research participants.

Theoretical Framework of the Study

Concept of Management Technology: The term management technology is a modern scientific concept in contemporary management sciences. As a result, various definitions have been proposed to describe it, including the following:

- "It refers to the interaction that involves value exchanges through the use of electronic communication networks." (Ghoneim, 2004, p. 30)
- "A new managerial methodology based on the understanding, adoption, and utilization of information and communication technology in performing fundamental managerial functions within organizations in the era of globalization." (Al-Sulami, 2001, p. 323)
- "A management approach that makes decisions technologically by leveraging the best opportunities, risks, and options in preparing for a dynamic, uncertain, and volatile future market." (Tawfiq, 2003, p. 22)
- "A managerial process that capitalizes on the distinctive capabilities of the internet and business networks for planning, directing, and controlling resources electronically to achieve organizational goals." (Abboud, 2011, p. 127)

Concept of Electronic Fund Transfer (EFT)

Electronic Fund Transfer (EFT) is a system that enables financial transactions electronically, supported by advanced computing devices and modern technological systems. The successful execution of electronic transactions relies on electronic payment methods. (Al-Maghribi, 2007, p. 225)

Some of the key electronic payment methods include:

- **Digital Currency:** The use of electronic money requires loading deposit values and cash balances onto an electronic medium in exchange for its symbolic value. *(Hijazi, 2002, p. 194)*
- **Bank Payment Orders:** These orders are used to make payments to a designated recipient on a specific date at the request of the client. Today, they are processed through electronic management applications using the Bankers Automated Services (SBAC) system. (Hijazi, 2002, p. 194)

Requirements for Implementing Electronic Management

Several essential requirements must be met for the successful implementation of management technology. These include: *(Al-Hadi, 2001, pp. 46-65)*

- **Strategic planning** for the transition towards digitization.
- **Developing comprehensive communication plans** that cover all organizational units.
- **Focusing on customer needs** and ensuring their satisfaction.
- **Empowering employees** responsible for delivering electronic services.
- **Conducting comprehensive performance assessments** to improve efficiency.
- **Ensuring seamless integration** of service systems with technical capabilities.

Impact of Technological Change on Institutional Performance

Technology has become a dominant theme in contemporary literature, with its influence on the economy evident in several key aspects: *(Ashour, 2016, p. 289)*

- **The increasing trend toward economic alliances** to capitalize on rapid technological advancements.
- **The growing role of international financial institutions** in directly shaping administrative and economic reform programs.
- **The emergence of a "global village" phenomenon**, reducing distances due to advances in transportation and increasing cross-cultural interactions.
- **The evolution of mass media**, which has significantly influenced human behavior, aspirations, and social interactions, leading to greater cultural integration and exchange.

By analyzing the correlation between technological advancement in institutions and human labor, an inverse relationship can be observed. That is, as advanced technology is integrated into operations, the number of human workers tends to decrease, as automated systems replace manual labor to deliver the same volume of services and activities. (Al-Najjar, 2008, pp. 60-70)

However, another perspective suggests a direct relationship between technological advancement and employment within organizational units. In this case, as production methods become more sophisticated, the demand for specialized human resources increases, indicating a continuous upward trend in employment as machines and systems evolve. (Al-Najjar, 2008, *pp. 60-70)*

Impact of Technology on Human Resources in Economic Institutions

One of the most significant consequences of globalization on the workforce in developed countries includes the following: *(Al-Moussawi, 2000, p. 26)*

- **Disappearance of permanent employment opportunities** and a gradual shift toward temporary labor.
- **Declining job security** and a reduced role for labor unions.
- **Increased unemployment**, leading to a critical phase in the labor market.
- **Emergence of new work patterns**, such as part-time employment or shorter working hours.

Achieving Competitive Advantage in Economic Institutions Through Electronic Learning Technologies

Competitive advantage refers to an institution's ability to operate more effectively in its

target markets and surrounding business environment than its competitors. It reflects the extent to which an institution can perform in a way that rivals cannot easily replicate. (Yassin, 1992, p. 376)

The human element plays a crucial strategic role in institutions that rely on it as a key asset. This is particularly evident in industries such as information technology and software development, where competition hinges on two main factors: technological innovation and human expertise.

To sustain a competitive advantage and thrive in both local and global markets, institutions must embrace effective management practices and be willing to adopt modern strategies that enable them to build and maintain a competitive edge. This can be achieved through the following approaches: (Zayed, 2006, p. 38)

- **Developing a deep future vision** by engaging in strategic planning, identifying strengths, weaknesses, opportunities, and threats (SWOT analysis) to determine the correct strategic direction.
- **Encouraging innovation and the generation of new ideas** to stay ahead of competitors.
- **Enhancing change management capabilities** to efficiently adapt to evolving market conditions.
- **Focusing on total quality management (TQM)** to improve overall institutional performance and customer satisfaction.

Applied Framework of the Study: The Reality of Implementing Management Technology Applications at the Agricultural Bank for Rural Development in Adrar

1. Introduction to the Study Site

The Agricultural Bank for Rural Development (BADR): The Agricultural Bank for Rural Development (BADR) was established by Decree No. 82/166 on March 13, 1982, with a primary focus on financing agricultural activities. It operates as a national financial institution with legal personality and financial independence.

The creation of BADR was part of banking system reforms aimed at enhancing the profitability of commercial banks. Given its strategic importance, the bank has positioned itself as a key player among other commercial banks, particularly in the context of Algeria's transition to a free-market economy and increasing financial sector competition. Like all banks, BADR operates under general banking regulations and follows established credit system policies.

The bank has embraced the principle of decentralization, granting broad decision-making powers to its branches and agents, particularly in loan distribution and institutional restructuring policies to streamline its services. This decentralization was further reinforced after Algeria's administrative division expanded to 48 provinces, allowing BADR to strengthen its agricultural and rural development financing efforts.

The BADR branch in Adrar was established in March 1982, the same year as the bank's national launch. Since its inception, it has played a crucial role in financing key economic sectors, particularly agriculture and traditional industries. The branch operates continuously for 8 hours daily, from 8:00 AM to 4:00 PM, providing financial services that facilitate capital circulation.

As an economic service institution, BADR Adrar collects deposits from clients and reinvests them through loans, contributing significantly to the development of agriculture in Algeria's

desert regions. Over time, the bank has expanded its impact, financing various sectors and supporting economic growth in rural areas, aligning with contemporary financial and technological advancements.

2. Statistical Data Processing and Analysis Methods

2.1 Data Collection Procedures

The table below presents the details of the survey forms distribution and response rates:

Distributed Forms	**Retrieved Forms**	**Lost Forms**	**Forms Eligible for Analysis**	**Loss Rate**	**Response Rate**
58	54	4	54	6.89%	93.10%

The response rate was calculated at 93.10%, which is sufficiently high to provide reliable results for the study. Meanwhile, the loss rate stood at 6.89%, primarily due to employee absences related to official duties or leave.

2.2 Statistical Data Processing and Analysis Methods

2.2.1 Data Entry and Classification

To process the survey data, we utilized the Statistical Package for the Social Sciences (SPSS), which is considered one of the most widely used statistical software tools in social science research. *(Rabie, 2000, p. 25)*

Each question in the survey was assigned a numerical code and entered into the SPSS database. The survey forms were sequentially numbered (from 01 to ...) to facilitate easy reference when needed. Subsequently, mathematical calculations were performed according to standardized statistical procedures.

For data analysis, our primary approach focused on percentage distributions, as reflected in the subsequent tables.

2.2.2 Statistical Analysis

In social research, scientific inquiry provides multiple tools that assist researchers in organizing and analyzing data efficiently. Although social research predominantly relies on qualitative analysis, statistical methods can be used to supplement qualitative insights with quantitative evidence.

For this study, we employed statistical techniques appropriate to the nature of the data and survey structure to achieve the research objectives. Our statistical analysis focused on the following:

- Frequency distributions and percentage values to describe the study population and the analyzed tables.
- Simple and composite frequency tables for further analysis and interpretation.
- SPSS software to determine the relative significance of survey responses and to calculate correlation coefficients.

Pearson Correlation Coefficient

One of the key statistical methods applied in this study is the **Pearson Correlation Coefficient**, a widely used measure in scientific research. This coefficient evaluates the **strength and direction of a linear relationship** between **two quantitative variables**.

It is important to note that the **Pearson Correlation Coefficient only detects linear relationships**. If a **nonlinear relationship** exists between two variables, this method will **not accurately capture** that relationship. Additionally, in cases where the correlation appears **weak or nonexistent**, it is possible that a **nonlinear relationship** is present.

The Pearson Correlation Coefficient ranges from -1 to +1, and its interpretation is as follows:

- **Less than 0.2 → Weak correlation.**
- **Between 0.4 and 0.69 → Moderate correlation, indicating a significant relationship.**
- **Between 0.7 and 0.89 → Strong correlation.**
- **Greater than 0.9 → Very strong correlation, indicating an almost perfect relationship.**

3. Data Analysis: The Reality of Implementing Management Technology Applications at the Agricultural Bank for Rural Development in Adrar

3.1 Socio-Demographic Characteristics of the Study Population

Gender Distribution

The table below illustrates the distribution of respondents based on gender:

Gender	**Frequency**	**Percentage**
Male	37	69%
Female	17	31%
Total	**54**	**100%**

The data reveals that male employees outnumber female employees, with men constituting 69% of the workforce, compared to 31% for women. This disparity can be attributed to several factors:

- The nature of work within the institution, which demands a high level of responsibility.
- The preference of many women to work in sectors such as education and healthcare rather than in banking.
- Social and cultural norms in the region, which may limit women's participation in certain sectors.
- The economic responsibility placed on young men, compelling them to seek stable employment to support themselves and their families.

Age Distribution

The table below presents the age distribution of respondents:

Age Group	**Frequency**	**Percentage**

Age Group	Frequency	Percentage
20 – 30	14	26%
30 – 40	21	39%
40 – 50	13	24%
50 – 60	06	11%
Total	**54**	**100%**

The 30–40 age group represents the largest proportion (39%) of employees. This is due to the institution's tendency to employ young and dynamic individuals who are more motivated and adaptable to technological advancements. The relatively high percentage of younger employees suggests that the institution prioritizes hiring skilled and competent professionals to meet the demands of modern banking technologies. Additionally, the proportion of young employees is expected to rise further as older employees retire

Educational Level

The table below shows the distribution of respondents based on their educational background:

Educational Level	Frequency	Percentage
Primary	01	2%
Middle School	07	13%
High School	19	35%
University	27	50%
Total	**54**	**100%**

The data indicates that university graduates constitute the largest proportion of employees (50%), followed by high school graduates (35%). Meanwhile, employees with only primary education represent the smallest proportion (2%). These findings highlight several key insights:

- The institution prioritizes higher education qualifications when hiring employees, ensuring that candidates meet job requirements.
- The modern banking sector increasingly demands highly skilled professionals to maintain competitiveness at both local and national levels.
- The institution actively recruits young talents, fostering innovation and adaptability.
- The introduction of new electronic management technologies necessitates employees with advanced skills, typically found among university graduates.

Job Level Distribution

The following table presents the distribution of employees based on their job roles:

Job Level	Frequency	Percentage
Executive	05	9%
Supervisor	20	37%
Operational	29	54%

Job Level	Frequency	Percentage
Total	**54**	**100%**

The data indicates that operational employees make up the largest share (54%) of the workforce, followed by supervisors (37%), while executives represent the smallest proportion (9%). This distribution reflects the hierarchical structure of the organization, where decision-making authority is concentrated among a few, while the majority of employees are engaged in execution and operational tasks. This structure aligns with bureaucratic management models, where leadership and decision-making are centralized at the top.

Years of Service

The table below illustrates the distribution of employees based on their years of service:

Years of Service	Frequency	Percentage
Less than 5 years	24	44%
5 – 10 years	15	28%
10 – 15 years	07	13%
More than 15 years	08	15%
Total	**54**	**100%**

From the table, we observe that 44% of employees have worked at the institution for less than five years, making this the largest group, followed by the 5 to 10-year category, which accounts for 28%. This trend is natural, as the institution actively seeks to recruit young talent with fresh perspectives, benefiting from their contributions to competition, innovation, and creativity.

Additionally, this indicates that the institution's recruitment process is progressing rapidly, driven by vacant positions resulting from employee promotions and retirements within the organization.

Relationship Between Educational Level and Preferred Technology for Cash Withdrawals

The table below illustrates the correlation between educational level and the preferred technology for withdrawing funds:

Educational Level	Bank Cards		Paper Checks		Both		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Primary	/	/	/	/	01	%04	1	2%
Middle School	03	11%	/	/	04	%16	7	13%
High School	09	%33	02	%50	08	%33	19	35%
University	17	%52	02	%50	11	%46	27	50%

Educational Level	Bank Cards		Paper Checks		Both		Total	
Total	27	%100	04	%100	24	%100	54	100%

The data indicates that the highest proportion (52%) of respondents who prefer using bank cards hold university degrees. Conversely, 46% of high school graduates prefer using both bank cards and paper checks. Meanwhile, 50% of respondents who prefer paper checks are from the high school and university levels.

The preference for bank cards can be attributed to their ease of use, availability at all times, and ability to reduce congestion at bank counters, allowing withdrawals outside of working hours.

The successful adoption of bank cards for reducing pressure on physical withdrawal counters highlights two key factors:

1. The effective implementation of banking technology by the institution.
2. The positive response of customers in adapting to modern financial technologies, encouraging the bank to expand its range of withdrawal methods to accommodate diverse customer preferences.

Additionally, we observe a clear variation in the preferred withdrawal method across educational levels. This can be explained by the fact that university graduates are generally more familiar with banking technology, unlike those with middle or high school education, who may have less exposure to digital financial tools.

Thus, we conclude that there is a direct relationship between educational level and the preferred cash withdrawal technology—as educational levels increase, so does the preference for using bank cards.

This conclusion is supported by the calculated correlation value (Sig. (bilateral) = 0.620), confirming a statistically significant relationship between educational level and the technology used for cash withdrawals.

Conclusion: Educational background influences the adoption of financial technology in banking management.

Relationship Between Bank Advertising for Bank Cards and Customer Adoption Rates

The following table illustrates the relationship between bank advertisements for bank cards and the level of customer adoption:

Advertising Effort	Increased Customer Adoption	Misconceptions About Bank Cards	Lack of Knowledge About Usage	Total
	Freq.	%	Freq.	%
Sufficient Advertising	29	62%	00	00%
Insufficient Advertising	18	38%	04	100%
Total	47	100%	04	100%

The table shows that **54% of respondents** acknowledged that the bank provides **sufficient advertising for bank cards**, with **62% confirming an increase in customer adoption** of these technologies. However, **46% of respondents** believed that the **bank's advertising efforts were insufficient**, as customer engagement had **not reached the expected level**. This was attributed to:

- **Misconceptions** held by some customers about bank cards.
- **Lack of awareness** regarding how to use them effectively.

The bank maintains an **official website**, which serves as a **primary platform for promoting its services**, including bank cards. This provides an **opportunity for internet users** to explore the **benefits and features** of these digital banking tools.

The **increasing use of bank cards** suggests that **the bank's advertising strategy has been successful**, effectively reaching and educating a **large portion of its customers**. However, some respondents still believe the advertising efforts are **insufficient**, as **not all segments of society** have **equal access to the bank's website or digital platforms**.

Recommendations for Improving Advertising Strategies

- The bank should **diversify its advertising methods** to **reach a broader audience**, especially those **with limited internet access**.
- Promotional efforts should include **traditional media (TV, radio, newspapers)** as well as **physical in-branch advertising**.
- Marketing strategies should be **tailored to different customer segments**, as the bank **offers three types of bank cards**, each designed for a **specific social group**.

The **widespread adoption of bank cards** indicates an **increasing awareness among customers** of their benefits, such as **speed, time efficiency, and enhanced financial security**. Additionally, employees recognize **the importance of adapting to technological advancements** in banking.

The **calculated correlation value (Sig. (bilateral) = 0.924)** confirms a **very strong relationship** between **advertising efforts and customer adoption of electronic banking technologies**.

Relationship Between Electronic File Sharing Among Employees and Its Contribution to Business Success and Development

The table below presents the correlation between **electronic file sharing among employees** and its impact on the **success and development of business operations**:

Electronic File Sharing	Business Success		No Impact		Sometimes		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Yes	15	%27	/	/	02	%22	17	%31
No	20	%36	/	/	03	%33	23	%43
Sometimes	10	%17	/	/	04	%45	14	%26
Total	**54**	**%100**	**00**	**%00**	**09**	**%100**	**54**	**%100**

The results indicate that 43% of employees do not engage in electronic file sharing,

yet 36% of them acknowledge that electronic tools have contributed to improving and accelerating work processes. Meanwhile, 31% of employees actively share files electronically.

From this, we can infer that despite the availability of electronic tools, many bank employees do not fully utilize all digital services, such as file sharing, and instead continue to rely on traditional methods. This is surprising given that most required files are accessible through the bank's internal network.

This limited adoption of electronic file sharing may be due to:

- **Administrative procedures that restrict the use of electronic messaging for only specific transactions.**
- **Bank policies requiring manual processing for certain documents, as confirmed by bank officials.**

However, the bank's investment in electronic tools is primarily aimed at enhancing customer service and reducing the burden on employees by automating manual processes. This initiative encourages continuous upgrades and technological advancements in the bank's operational framework.

Relationship between Training Programs and Employees Encountering New Technologies They Cannot Use

The table below illustrates the relationship between employee training programs and the likelihood of encountering new technologies that employees struggle to use:

Training Received	Faced Issues Using New Technology		Did Not Face Issues		Total	
	Freq.	%	Freq.	%	Freq.	%
Yes (Trained Employees)	16	%52	09	%39	25	%46
No (Untrained Employees)	15	%48	09	%61	29	%54
Total	**31**	**%100**	**14**	**%100**	**54**	**%100**

The results show that 54% of respondents who did not receive training reported no difficulties in using electronic tools, while 61% of these untrained employees never encountered any technology they could not use. Conversely, 48% of untrained employees faced difficulties using new technologies.

Among the 46% of trained employees, 52% still encountered challenges using digital tools. Interestingly, trained employees were more likely to struggle with new technologies than untrained employees, revealing contradictions in the effectiveness of the training programs.

From this, we conclude that the issue stems from the lack of well-designed training programs that align with the actual needs of trainees, in addition to poor selection of training methods and locations. These shortcomings hinder the effectiveness of the training process and, consequently, the efficiency of electronic administrative operations, as these weaknesses have yet to be addressed.

Relationship Between Educational Level and Preferred Work Method

The table below illustrates the correlation between educational level and the preferred method for completing tasks and transactions:

Educational Level	Manual Method		Electronic Method		Total	
	Freq.	%	Freq.	%	Freq.	%
Primary	/	/	01	%02	01	%02
Middle School	/	/	07	%14	07	%13
High School	02	%67	17	%33	19	%35
University	01	%33	26	%51	27	%50
Total	03	%100	51	%100	54	%100

The data shows that:

- 51% of university graduates prefer using electronic methods.
- 67% of high school graduates still rely on manual methods, indicating a preference for traditional practices.
- There is a direct relationship between educational level and preference for electronic methods—as education level increases, so does the preference for digital tools.

Conversely, employees with lower educational levels are more inclined to use traditional methods, which require less technical expertise. This preference contradicts the bank's modernization strategy, as it invests significant financial resources annually to acquire advanced banking technologies such as electronic checks.

Thus, employees with lower education levels may pose a challenge to the full integration of digital banking solutions.

As educational levels increase, so does employees' willingness to adopt electronic banking technologies. This is supported by the calculated correlation value (Sig. (bilateral) = 0.753), confirming a strong positive relationship between education level and preference for digital banking methods.

Study Findings and Results

The fundamental difference between traditional management and technology-driven management lies in the degree to which institutions rely on advanced digital tools for completing tasks and transactions.

- Traditional management heavily depends on paper-based processes, which were still observed in the bank under study.
- Despite having electronic tools, the bank does not fully utilize their potential to maximize operational efficiency.

Key Observations from the Study

Although the Agricultural Bank for Rural Development (BADR) has made significant progress in adopting electronic management technology, it still does not rely entirely on digital solutions. Some electronic services are available, while others are still absent.

Electronic Banking Services at BADR

The study reveals that BADR provides several digital banking services, including:

1. Bank Payment Orders – A service that allows payments to a specific beneficiary at the customer's request.
2. Telephone Banking – A 24/7 service that enables customers to inquire about their accounts at any time.
3. Internet Banking – A platform that provides various online banking services, including balance inquiries, online shopping payments, and bill payments for electricity and phone services.
4. Electronic Checks – These replace traditional paper checks, utilizing computer systems and digital signatures for authentication.

Hybrid Approach to Banking Operations

The study findings indicate that the bank currently employs both traditional and electronic methods in its operations. Administrative technology has not yet fully replaced manual processes, but rather, it serves as a complementary system.

Conclusion

The emergence of management technology as a result of technological advancements in the business sector has placed a significant responsibility on institutions to adapt their work methods. This adaptation requires the development of internal administrative structures to align with external environmental changes, creating the necessary conditions for success.

By achieving balance and coordination between organizational variables, employee behavior, teamwork dynamics, and performance systems, institutions can enhance efficiency and effectiveness.

With the growing demand for services and the increasing customer base, institutions must proactively adopt modern management concepts based on digital technology and the information revolution—including management technology and electronic administration—to gain a competitive edge in the global market.

In the era of globalization, where knowledge, initiative, and speed are essential, institutions must establish robust digital infrastructure that guarantees data security and privacy for users of digital applications. This requires:

- Modern information networks capable of rapid data transmission while ensuring integrity and confidentiality.
- A transition from traditional management models to modern, technology-driven systems.
- Investment in automated systems and human expertise to operate and sustain technology-based management solutions.

Ultimately, successful digital transformation in management requires technological preparedness, strategic vision, and a commitment to continuous innovation to ensure institutional competitiveness and efficiency in the digital age.

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