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Measuring the Impact of Employing Artificial Intelligence on the Development of Financial Services in Algeria: A Field Study

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Abstract:

The study investigates the impact of adopting artificial intelligence technologies on improving the quality and efficiency of financial services in Algeria. Data were collected through a structured questionnaire, with a valid response rate of 97.24%, ensuring credible evaluation. The findings demonstrate statistically significant evidence that AI is increasingly integrated into core operations, contributing to improvements in service quality and institutional performance. AI adoption was found to enhance accuracy, accelerate processes, and support better decision-making, reflecting a shift toward digital transformation in the Algerian financial sector. The study recommends accelerating AI implementation and providing continuous training to strengthen employees' digital competencies. It also emphasizes the importance of establishing regulatory frameworks to guide AI deployment and adopting phased strategies to ensure effective technological integration. Additionally, the study highlights the need to develop partnerships between financial institutions and technology firms to create AI solutions suited to the sector's needs in Algeria.

Keywords: Technology; Artificial Intelligence; Development; Financial Services; Algeria.

JEL Classification Codes: G21, O33, C83

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INTRODUCTION

Over recent decades, technological innovations have become a key force reshaping global financial systems. Among these, artificial intelligence has emerged as a transformative tool capable of redefining financial services and their delivery mechanisms. Traditional operational models no longer suffice for institutions facing increasing transaction volumes, complex risks, and rising customer expectations for faster, more transparent, and innovative services. AI offers advanced applications such as intelligent process automation, predictive customer analytics, algorithm-based credit assessment, and enhanced fraud detection and big-data management. Globally, adopting AI improves operational efficiency, strengthens competitiveness, expands financial inclusion, and enhances resilience to economic shocks.

In Algeria, AI integration in financial services remains at an early stage, highlighting the need to examine its feasibility within existing digital infrastructure, regulatory frameworks, and human capital capabilities. This study aims to analyze the current state of the Algerian financial sector, identify opportunities and challenges of AI adoption, and provide a practical vision for modernizing and enhancing the performance of financial services. This study is guided by the following central question: How can artificial intelligence technologies be effectively employed as a strategic tool to develop financial services in Algeria?

- Research Hypotheses

Based on the identified research problem, the study proposes the following hypotheses:

H1: There are statistically significant indicators that financial institutions in Algeria employ artificial intelligence technologies in delivering their various services.

H2: There are statistically significant indicators that integrating AI applications within financial institutions contributes to the development of financial services.

- Research Objectives

The study objectives can be presented as follows:

- Analyze the current state of the financial services sector in Algeria and identify the challenges it faces amid accelerating technological transformations.
- Identify the most relevant AI applications in financial services, including predictive analytics, intelligent credit evaluation, fraud detection, and institutional automation.
- Assess the readiness of Algeria's digital, regulatory, and human infrastructure to integrate AI technologies into the financial sector.
- Investigate the perceptions of employees in financial institutions regarding the opportunities and challenges of adopting AI to enhance service quality.

- Research Methodology

This study uses a descriptive-analytical approach, collecting field data through questionnaires from financial institution employees to assess perceptions of AI adoption in financial service development. Statistical techniques will analyze quantitative data, while qualitative analysis will interpret findings in the context of institutional and digital realities.

- Literature Review

Study of (Benachour & al, 2025) "The Impact of Artificial Intelligence on Financial Auditing: The Case of Algeria" This study explores the role of artificial intelligence in transforming financial auditing in Algeria. Based on a field survey of certified accountants, statutory auditors, financial auditors, and experienced professionals in audit firms, the research provides a realistic assessment of AI adoption in the sector. The findings show that AI significantly enhances auditing accuracy, speeds up procedures, and improves the detection of anomalies within large financial datasets. However, the study also notes ethical challenges related to transparency, responsibility for automated output, and the need for clear professional guidelines. The results emphasize that auditors must acquire competencies beyond traditional auditing, particularly in information systems,

data analytics, and machine learning fundamentals. Despite integration challenges, AI presents major opportunities by overcoming the limitations of manual methods and enabling earlier and more precise fraud detection.

Study of (Hassini & al, 2025) “Artificial Intelligence as a Supporter of Digital Transformation in the Financial and Banking Sector in Algeria” This study highlights the pivotal role of artificial intelligence (AI) in driving digital transformation and economic development, particularly within Algeria’s financial and banking sector. AI is recognized as a key strategic tool for enhancing service quality, increasing profitability, and improving operational efficiency. The findings reveal that big-data analytics supports accurate market forecasting and informed financial decision-making, while AI-powered risk management and fraud prevention systems strengthen lending processes and reduce financial risks. Additionally, customer service has significantly improved through intelligent platforms and AI-driven chatbots that provide personalized, immediate support by understanding client needs. The authors recommend stronger governmental support to accelerate AI adoption, emphasizing its potential to enhance efficiency, forecasting accuracy, and innovation. They conclude that AI’s role in the financial and banking sector will continue to expand, reinforcing its positive impact on Algeria’s economic development.

Study of (Boufafa, 2024) “Artificial Intelligence and Loan Risk Management in Algerian Public Banks: A Forward-Looking Study on the Possibility of Adoption and Prospects for Application” This study examines the prospects of adopting artificial intelligence (AI) to enhance loan risk management in Algeria’s banking system. In line with global digitalization trends, national reforms have been implemented to modernize this strategic sector. Using a descriptive approach supported by a case study, the research engaged three stakeholder groups: academic researchers, banking officials, and representatives of companies seeking loans from public banks. Findings indicate strong support for digital transformation, although opinions on AI adoption vary.

1. Theoretical Foundations of the Study

This section presents the theoretical foundations underpinning the study, providing key concepts and frameworks essential for understanding the role of artificial intelligence in developing financial services.

1.1. The Nature of Artificial Intelligence

Artificial intelligence is a cutting-edge technology that combines theory and practice to transform cognitive and operational processes, bridging scientific research with real-world application.

1.1.1. Concept of Artificial Intelligence

Artificial intelligence is a major branch of computer science concerned with simulating human cognitive abilities through the development of systems capable of learning, adapting, and interacting with their environments beyond the limits of traditional programming. Definitions vary across the literature: some adopt an academic perspective emphasizing mathematical structures and algorithmic modeling, while others focus on its practical dimension as a set of tools and technologies that enhance decision-making and generate more efficient solutions (Russell & Norvig, 2021). Another perspective views AI as a multidisciplinary field that integrates computer science, statistics, data science, cognitive psychology, and other areas to strengthen the capacity of information systems for autonomous reasoning and large-scale data analysis (Jordan & Mitchell, 2015).

In light of these views, artificial intelligence can be defined as a scientific and applied field that aims to develop systems capable of simulating human cognitive functions through autonomous learning, analysis, and decision-making. It is built upon mathematical models and algorithms that enable machines to process vast datasets, extract new patterns, and adapt to dynamic environments. As such, AI represents a strategic tool for fostering innovation and enhancing efficiency across various sectors.

1.1.2. Artificial Intelligence Technologies

Artificial intelligence encompasses a wide range of technologies that have driven substantial transformations in the financial services sector. These include: (Goodfellow & al, 2016)

- Machine learning, which enables systems to improve performance over time based on experience and data;
- Artificial neural networks, used for predicting financial behavior and identifying unseen patterns in markets;
- Natural language processing, which supports financial text analysis and enhances customer communication through intelligent assistants;
- Robotics and process automation, which streamline repetitive operations within banks and financial institutions;
- Recommendation systems, which enhance the customer experience by suggesting personalized financial products.

1.1.3. Dimensions of Artificial Intelligence

AI is analyzed through three interrelated dimensions: (He & al, 2017)

- Technical dimension: focuses on algorithmic development and computational engineering that support the functionality of intelligent applications;
- Organizational dimension: reflects how AI technologies are integrated within institutional structures to enhance operational efficiency and increase customer value;
- Strategic dimension: refers to the long-term use of AI a eu pathway for achieving sustainable competitive advantage and strengthening institutional adaptability amid global economic transformations (Davenport & Ronanik, 2018).

1.2. The Nature of Digital Services in the Context of Digital Transformation

Digital services are a fundamental pillar of digital transformation, transforming traditional service models into more efficient and flexible solutions. Integrating AI in the financial sector further enhances innovation and improves service quality.

1.2.1. Concept of Financial Services

Financial services represent a core component of modern economies, playing a vital role in mobilizing savings, financing investment activities, and facilitating commercial transactions through various payment and credit instruments. They operate as a central intermediary in the circulation of funds and resources within the economy, making them a key driver of economic growth and development (Levine, 2005). Another perspective, financial services encompass a broad spectrum of economic activities delivered by financial institutions including banks, insurance companies, financial markets, and lending entities designed to support saving, borrowing, investing, and risk management. These services collectively contribute to the well-being of individuals and businesses and reinforce the stability and performance of the broader economy (IMF, 2023).

In the context of digital transformation, the financial sector has undergone a gradual shift from traditional service mechanisms reliant on paperwork and manual processes to digital models based on advanced information and communication technologies. This transition has not only improved operational efficiency and reduced costs but also fostered the emergence of innovative financial products and expanded financial inclusion to reach segments previously excluded from conventional banking services (Zetzsche & al, 2020).

1.2.2. Applications of Artificial Intelligence in Financial Services

Artificial intelligence has become one of the most influential drivers in the advancement of digital financial services, with its applications reflected in several key domains:

- **Credit Risk Management:** AI-based algorithms analyze large-scale datasets to assess clients' creditworthiness with greater accuracy compared with traditional methods, thereby reducing the likelihood of financial default (Khandani & al, 2010).
- **Financial Technology (FinTech):** AI has enabled FinTech companies to design innovative solutions for electronic payments, peer-to-peer lending platforms, and digital investment

services characterized by speed, flexibility, and enhanced accessibility (Gomber & al, 2017).

- Asset and Portfolio Management: Intelligent algorithms strengthen financial institutions' ability to forecast market fluctuations and develop tailored investment strategies, particularly through automated advisory systems (Jung & al, 2018).

- Digital Banking and Financial Inclusion: AI technologies have fostered more accessible and transparent digital banking environments. Intelligent applications enhance customer experience and broaden the distribution of financial services to underserved and marginalized groups, reinforcing economic and social stability (Ozili, 2018).

1.3. The Relationship Between Artificial Intelligence as a Promising Technological Tool and the Development of Financial Services

Artificial intelligence has emerged as one of the most transformative technologies within the financial sector, driving substantial improvements across several core dimensions:

- Intelligent Credit Assessment: By leveraging machine learning algorithms to analyze large and complex datasets, financial institutions gain enhanced capabilities to evaluate clients' creditworthiness with far greater precision than traditional assessment methods allow (Vuković & al, 2025).

- Fraud Detection and Prevention: AI technologies employ predictive analytics and behavioral pattern recognition to identify suspicious or abnormal financial activities in real time. This capability significantly strengthens the security of electronic transactions and fosters greater institutional trust (Lam & al, 2025).

- Operational Efficiency Enhancement: Smart automation reduces operational costs and accelerates transaction processing, enabling institutions to reallocate resources toward innovation and the development of advanced financial products (Samek & Müller, 2021).

- Automated Financial Advisory Services (Robo-Advisors): AI-driven advisory systems provide investment recommendations

and portfolio allocation strategies based on sophisticated algorithms, thereby widening access to financial advisory services for broader segments of the population (Sironi, 2021).

- Advancing Financial Innovation: Through the integration of AI with financial technology (FinTech), institutions are able to design innovative financial solutions tailored to customer needs, which strengthens competitiveness and accelerates the evolution of financial markets (Arner & al, 2017).

2. The Field Study on the Deployment of Artificial Intelligence Technologies in Enhancing Financial Services and Supporting Economic Diversification in the Province of Algiers

The empirical investigation involved defining the study population and sample size, validating the research instrument (questionnaire), analyzing respondent characteristics, performing descriptive statistics for the study dimensions, and testing the proposed hypotheses. The procedures are summarized as follows:

2.1. Preliminary Procedures

The preliminary procedures constitute a methodological foundation ensuring the accuracy and reliability of the study's results. These procedures include identifying the study population and sample, selecting the data collection tools, and verifying the validity and reliability of the statistical instrument prior to conducting the applied analysis.

2.1.1. Study Population and Sample

The study population consists of employees working in financial institutions (banks and financial entities) operating in Algeria, given their direct connection to the study's core inquiry regarding the deployment of artificial intelligence technologies in developing financial services. A purposive sample of 292 employees was selected, to whom the questionnaire was distributed. A total of 282 questionnaires were returned and deemed valid for analysis, representing a response rate of 97.24% of all distributed questionnaires.

2.1.2. Data Collection Instrument

The questionnaire served as the primary quantitative tool for addressing the research problem and testing the hypotheses. It comprised two main sections: Section 1: collected respondents' demographic information (gender, job position, age, and education), while Section 2: assessed employees' perceptions of AI as a technological tool for developing financial services in Algeria. Section 2: was structured into three axes: (1) AI as a Promising Technological Tool (8 items), (2) Development of Financial Services (8 items), and (3) AI and the Development of Financial Services in Algeria (8 items). The instrument was designed based on prior studies and the study's conceptual framework, validated by academic experts, and analyzed using SPSS and AMOS to ensure accuracy and reliability.

2.1.3. Reliability of the Measurement Instrument

Cronbach's alpha was calculated for each questionnaire dimension to assess the internal consistency of the instrument.

Dimension	Number of Items	Cronbach's Alpha
AI as a Promising Technological Tool	8	0.902
Development of Financial Services	8	0.876
AI and the Development of Financial Services in Algeria	8	0.915
Overall Instrument	24	0.896

Source: Prepared by the researchers based on SPSS v.26.

The results in Table (1) show that all Cronbach's alpha values exceed the acceptable threshold of 0.60, ranging from 0.876 to 0.915, indicating high internal reliability and consistency of the questionnaire items. The first axis, AI as a promising technological tool, recorded 0.902, reflecting strong homogeneity in assessing employees' awareness of AI's potential. The second axis, development of financial services, achieved 0.876, confirming reliable measurement of service efficiency improvements. The third axis, AI and the development of financial services in Algeria, reached the highest value of 0.915, highlighting respondents' recognition of AI's transformative role in the financial sector. Overall, the

instrument obtained a Cronbach's alpha of 0.896, demonstrating strong confidence in the research tool and supporting the validity of subsequent statistical analyses on AI adoption in enhancing Algerian financial services.

2.2. Descriptive Measures of the Study

This section presents the descriptive results of the respondents' answers using arithmetic means and standard deviations to illustrate the general trends in their perceptions. A five-point Likert scale was employed to interpret agreement levels and to examine the study's hypotheses.

2.2.1. Description of the Sample Characteristics

The demographic characteristics of the study sample comprising employees of financial institutions (banks and credit establishments) in Algeria were analyzed.

Table (2): Demographic Characteristics of the Study Sample

Variables	Categories	Frequency	Percentage
Gender	Male	193	68.44
	Female	89	31.56
Job	Bank Manager	21	7.45
	Head of Department	62	21.99
	Accountant/Controller	96	34.04
	Front-Desk Employee	103	36.52
Age	25–35 years	69	24.47
	36–45 years	134	47.52
	Above 45 years	79	28.01
Education	Bachelor's	65	23.05
	Master's	124	43.97
	Doctorate	93	32.98

Source: Prepared by the researchers based on SPSS v.26.

The results in Table (2) indicate that the majority of respondents were male (68.44%), reflecting the workforce structure in Algerian financial institutions, while females represented 31.56%. Front-desk employees constituted the largest group (36.52%), followed by accountants and controllers (34.04%), with heads of departments at 21.99% and bank managers at 7.45%, ensuring inclusion of both operational and

managerial perspectives. Regarding age, the largest proportion was 36–45 years (47.52%), followed by those over 45 (28.01%) and 25–35 (24.47%), representing a balance of experience and adaptability to new technologies. Most respondents held a Master’s degree (43.97%), followed by Doctorates (32.98%) and Bachelors (23.05%), highlighting a highly educated sample capable of providing informed insights on AI adoption in financial services.

2.2.2. Descriptive Measures of Respondents’ Answers and Hypothesis Testing

Descriptive analysis was used to evaluate respondents’ perceptions, employing the arithmetic mean and standard deviation to determine response trends and variability. A five-point Likert scale was applied to classify and interpret the results as follows: 1–1.80: Strongly Disagree; 1.81–2.60: Disagree; 2.61–3.40: Somewhat Agree; 3.41–4.20: Agree; 4.21–5: Strongly Agree.

- Descriptive Measures for the Axis: Artificial Intelligence as a Promising Technological Tool

Table (3): Descriptive Measures Axis (01)

Statement	Mean	Std. Dev	Eva
AI algorithms contribute effectively to automating routine tasks.	4.27	0.65	Strongly Agree
Machine learning enhances the accuracy of future predictions.	4.12	0.72	Agree
Neural networks help process large volumes of complex data.	4.08	0.74	Agree
Natural language processing techniques improve understanding of human interactions.	3.97	0.78	Agree
AI strengthens the security and protection of digital systems.	4.25	0.66	Strongly Agree
Intelligent recommendation systems improve service and product customization.	4.15	0.70	Agree

Clear strategic plans exist for expanding the scope of AI deployment.	4.10	0.73	Agree
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AI supports innovation and fosters the creation of new digital solutions.	4.18	0.69	Agree
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Axis (1): Artificial Intelligence as a Promising Technological Tool	4.14	0.72	Agree
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Source: Prepared by the researchers based on SPSS v.26.

The descriptive analysis of AI as a promising technological tool shows a high overall mean (4.14) and low standard deviation (0.72), reflecting strong consensus on AI's critical role in advancing financial institutions. Respondents highlighted its impact on automation, security, and predictive analytics, indicating AI's capacity to reduce human effort, minimize errors, and enhance reliability. However, adoption of interactive AI technologies, such as natural language processing for customer engagement, remains limited, suggesting early-stage development in this area. Overall, AI is perceived as a strategic enabler for transforming operations, strengthening competitive advantage, and improving security, yet further investment in customer-facing technologies is needed to balance operational efficiency with enhanced digital service experiences.

- Descriptive Measures for the Axis of Developing Financial Services

Table (4): Descriptive Measures for the Axis (02)

Statement	Mean	Std. Dev	Eva
The use of modern technologies accelerates the processing of financial transactions.	4.28	0.61	Strongly Agree
The adoption of digital solutions reduces the likelihood of human errors in financial procedures.	4.12	0.69	Agree
Advanced tools enhance the accuracy of financial and administrative decision-making.	4.20	0.67	Agree

The development of financial services contributes to higher customer satisfaction.	4.05	0.73	Agree
Updating financial systems helps reduce operational costs.	3.95	0.79	Agree
Developing financial services improves the institution's responsiveness to customer needs.	4.10	0.72	Agree
Modernized financial services enhance the quality of financial analyses and reports.	4.22	0.64	Agree
Developing financial services increases customer trust in digital platforms.	4.15	0.70	Agree
Axis (2): Developing Financial Services	4.13	0.70	Agree

Source: Prepared by the researchers based on SPSS v.26.

The findings for the development of financial services show a high overall mean of 4.13 with a standard deviation of 0.70, reflecting strong agreement on its strategic importance in enhancing institutional performance and service quality. The results indicate that financial modernization in Algerian institutions improves transaction speed, the quality of financial analyses and reporting, customer satisfaction, trust in digital services, and institutional flexibility. However, its impact on reducing operational costs is comparatively lower, suggesting that further efforts are needed to fully translate technological investments into economic efficiency. Overall, the results affirm that developing financial services serves as a strategic mechanism for strengthening operational performance, financial transparency, and customer experience, while highlighting the need for optimized implementation to achieve broader institutional and economic benefits.

- Descriptive Measures for the Axis of Artificial Intelligence and the Development of Financial Services in Algeria

Table (5): Descriptive Measures for the Axis (03)

Statement	Mean	Std. Dev	Eva
AI applications facilitate access to financial services for individuals who are not integrated into the banking system, thereby promoting financial inclusion.	4.22	0.64	Strongly Agree
Intelligent financial systems help expand the customer base in remote and rural areas.	4.18	0.66	Agree
AI contributes to delivering personalized financial services tailored to the needs of economically vulnerable groups.	4.10	0.68	Agree
AI-based financial solutions simplify procedures for financing startup projects.	4.05	0.70	Agree
AI accelerates loan approval processes for small and medium-sized enterprises.	4.30	0.62	Strongly Agree
Smart financial services introduce new mechanisms to attract investment and support entrepreneurs.	4.12	0.67	Agree
AI contributes to creating new economic opportunities by fostering the development of innovative financial products.	4.14	0.65	Agree
AI enhances the ability of Algerian financial institutions to support sustainable economic development.	3.98	0.72	Agree
Axis (3): Artificial Intelligence and the Development of Financial	4.14	0.67	Agree

Services in Algeria

Source: Prepared by the researchers based on SPSS v.26.

The findings for the third axis, examining AI and the development of financial services in Algeria, reveal a high overall mean of 4.14 with a standard deviation of 0.67, indicating strong agreement on AI's positive role in advancing the financial sector. Respondents perceive AI integration as a strategic enabler that supports financial inclusion by expanding access to underserved populations and facilitates startup financing through more efficient evaluation and approval processes. Additionally, intelligent financial technologies are seen as drivers of new economic opportunities, innovation, and investment in non-traditional sectors. Overall, AI is recognized not only as a tool for enhancing service efficiency but also as a catalyst for sustainable economic transformation, entrepreneurship, and a diversified, competitive economy.

2.3. Testing the Study Hypotheses

The study's hypotheses will be tested as follows:

2.3.1. Testing the First Hypothesis

To test this hypothesis, the following null and alternative hypotheses were formulated:

H0: There are no statistically significant indicators that financial institutions in Algeria employ artificial intelligence technologies in performing their various services at the 0.05 significance level.

H1: There are statistically significant indicators that financial institutions in Algeria employ artificial intelligence technologies in performing their various services at the 0.05 significance level.

Table 6. T-Test Results for the Dimension (Artificial Intelligence and the Development of Financial Services in Algeria)

Variable	T-Value	Sig	Evaluation
Artificial Intelligence and the Development of Financial Services in Algeria	42.45	0.000	Statistically Significant

Source: Prepared by the researchers based on SPSS v.26.

The results in Table 6 show that the T-value for Artificial Intelligence and the Development of Financial Services in Algeria is 42.45, with a significance level of 0.000, well below the 0.05 threshold. This leads to the rejection of the null hypothesis, confirming that Algerian financial institutions significantly employ AI technologies. The findings indicate that AI effectively enhances operational efficiency, transaction accuracy, and client communication. Beyond adoption, the results highlight a strategic orientation toward integrating intelligent technologies as a core component of digital transformation, providing empirical evidence of AI's growing role in improving the quality and effectiveness of financial services in Algeria.

2.3.2. Testing the Second Hypothesis

To test this hypothesis, the following null and alternative hypotheses were formulated:

H0: There are no statistically significant indicators that integrating artificial intelligence applications within financial institutions contributes to the development of financial services in Algeria at the 0.05 significance level.

H1: There are statistically significant indicators that integrating artificial intelligence applications within financial institutions contributes to the development of financial services in Algeria at the 0.05 significance level.

Table 7. ANOVA, Correlation, and Determination Coefficient Test for the Second Hypothesis

Source	Sum Squar	Mean Squa	df	F	Sig.	Cor	Coef
Regression	18.24	18.24	1	159.5	0.000	0.60	0.36
Residual	31.92	0.114	280				
Total	50.16		281				

Source: Prepared by the researchers based on SPSS v.26.

The results in Table 7 reveal a moderate correlation ($r = 0.60$) between AI integration and the development of financial services in Algeria, with a coefficient of determination of 0.36, indicating that AI explains 36% of the variance in service

development. The F-value of 159.48 ($p = 0.000$) confirms the statistical significance of the model. These findings reject the null hypothesis and confirm a meaningful relationship, though the moderate strength reflects early-stage and selective adoption of AI. The results highlight the need for enhanced digital infrastructure, employee training, and strategic integration to maximize AI's transformative potential in Algerian financial institutions.

Conclusion

The study indicates that artificial intelligence is a promising strategic tool for enhancing and transforming financial services in Algeria. AI offers substantial potential to restructure traditional operations, improve institutional performance, increase operational efficiency, reduce time and resource consumption, and promote transparency through intelligent data analysis. It also enables more personalized and rapid services to meet diverse market needs. However, adoption is limited due to weak digital infrastructure, regulatory gaps, and insufficient specialized human capital. Addressing these challenges is essential to strengthen competitiveness, expand service offerings, foster financial inclusion, and support sustainable economic growth and institutional resilience.

Based on the findings, the study proposes the following recommendations:

- Strengthening digital infrastructure by upgrading financial information systems, data networks, and cloud-computing capabilities to ensure the effective integration of AI solutions into daily operations and to improve the accuracy and efficiency of financial data collection and analysis;
- Developing flexible regulatory and legislative frameworks that encourage financial innovation through the adoption of AI, while ensuring customer protection, risk mitigation, transparency, and accountability in the use of emerging technologies;
- Enhancing human-capital capabilities through specialized training programs in artificial intelligence and modern financial technologies (FinTech), which would empower employees to

use these tools effectively and sustain technological adoption within institutions;

- Implementing a phased adoption strategy, beginning with less complex AI applications such as predictive analytics, smart credit-scoring systems, and fraud detection tools, before progressively transitioning toward full process automation and AI-driven financial advisory services, ensuring a smooth and efficient transformation;

- Promoting strategic partnerships by fostering collaboration between financial institutions and specialized technology firms to facilitate knowledge transfer, leverage international best practices, and develop innovative solutions tailored to the specific needs of the Algerian market.

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