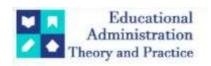
## **Educational Administration: Theory and Practice**

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**Research Article** 



# The impact of financial inclusion and the accounting sector on financial technology: Algeria as an example

Lefkir Nardjes<sup>1\*</sup>, Benhammou Fayza<sup>2</sup>

<sup>1</sup>\*Laboratory: globalization and economic policies; Faculty of Economics, Commercial and Management Sciences; University Algiers3, Researcher at the Center for Research in Applied Economics for Development CREAD (Algeria). E-mail: lefkir.nardjes@univ-algerg.dz <sup>2</sup>Laboratory: globalization and economic policies; Faculty of Economics, Commercial and Management Sciences; University Algiers3, Researcher at the Center for Research in Applied Economics for Development CREAD (Algeria). E-mail: Benhamou.faiza@univalger3.dz

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#### **ARTICLE INFO**

## **ABSTRACT**

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The accounting sector is undergoing a significant transformation thanks to financial technology, which contributes to automating operations, analyzing big data, and facilitating access to financial information through cloud accounting applications. AI is also used to develop smart accounting systems, and cryptocurrency presents new challenges and opportunities.

In Algeria, financial inclusion efforts face challenges such as the high proportion of unbanked people, weak financial infrastructure, limited financial awareness, and the absence of legal frameworks. The study aimed to answer the fundamental problem of how fintech contributes to changing the nature of Algeria's accounting sector and what the role of these changes is in achieving financial inclusion.

For this reason, we divided this paper with a theoretical focus on the theoretical framework of fintech, financial inclusion, and a standard applied aspect using the questionnaire and collecting data from the reports of global organizations; the study concluded with a set of findings and recommendations, the most important of which

Algeria is developing infrastructure, encouraging the use of financial technology, and providing financial education to achieve financial inclusion. Fintech plays an important role in expanding access to financial services, reducing costs, and providing innovative services. The accounting sector also supports financial inclusion by providing accurate and reliable information, enhancing transparency and accountability, and supporting risk management.

Algeria must develop legal and regulatory frameworks, modernize educational curricula, and develop accountants' skills to keep abreast of developments. The accounting sector can be vital in achieving financial inclusion in Algeria.

Keywords: Fintech, Financial inclusion, accounting, Algeria.

#### 1. Introduction:

The world is undergoing an accelerated digital evolution in all the sectors, including the financial sector. It is experiencing a transformation in terms of using technology for delivering financial services in a new and effective manner. This revolution in technology for the financial sector, also known as financial technology (FinTech), has massive potential for financial inclusion, i.e., financial services reaching every section of society, including marginalized and excluded people.

Algeria is one of the countries that are striving very hard to achieve financial inclusion due to its positive economic and social development impacts. Financial technology is also an important factor in achieving this since it assists in providing innovative financial services with a lower cost and expanding access to such services, especially in rural and remote locations.

But achieving financial inclusion through the application of financial technology is a significant challenge for the accounting profession, which is seen as the pillar of ensuring transparency and trustworthiness in the

financial system. Financial technology requires accountants to acquire new skills in an effort to catch up with the rapid advancements in this field and develop modern accounting methods and instruments to handle the high volumes and types of financial information produced by financial technology.

This study aims to highlight the impact of financial technology on Algeria's accounting sector and how the sector can benefit from this technology to achieve financial inclusion. The study will talk about the challenges facing Algeria's accounting sector due to technological development, the opportunities offered to it to improve its capabilities and competencies, and its productive role in achieving financial inclusion.

#### The significance of the study:

This study addresses the fundamental challenge of financial inclusion in developing countries like Algeria, with focus on the pivotal role of financial technology (fintech) in expanding access to financial services and its nexus with evolving accounting work in the context of rapid technological changes. By examining Algeria's unique circumstance of leading financial inclusion amid economic and social adversity, the study attempts to ascertain opportunities and potential challenges for the accounting discipline in leveraging fintech toward more financial inclusion.

#### **Objectives of the study:**

The aim of this study is to understand the impact of financial technology on Algeria's accounting industry, identify challenges arising from new technologies, and recommend reforms in the accounting industry to enhance financial inclusion. Finally, it aims to advise Algerian authorities on how to leverage financial technology to promote broader financial participation.

## Methodology of the study:

This research is grounded on a mixed-methods technique, which involves theoretical research based on a review of existing literature on accounting, financial technology, and financial inclusion and applied research in the form of surveys and interviews of Algerian experts in these fields. Qualitative data gathered will be analyzed using SPSS software to address the research questions and hypotheses of the research.

## The overall problem:

Based on the above, realizing the degree to which financial technology plays in modifying the accounting industry and ultimately toward realizing the potential of financial inclusion is the focal point of this research. Accordingly, the question is the following:

What is the role of financial technology in modifying the accounting industry in Algeria, and how much does the role play in realizing the vision of financial inclusion?

#### **Minor problems:**

- In light of financial technology advancements, what are the primary obstacles Algeria's accounting industry faces?
- In what ways may financial technology serve Algeria's accounting industry to increase its efficacy and efficiency in promoting financial inclusion?
- What qualifications must Algerian accountants possess to work with contemporary financial technology, and how do professional and educational organizations contribute to this?
- Is there a discrepancy between Algerian accountants' current capabilities and the skills that employers are looking for, given the proliferation of financial technology? What are some ways to close this gap?
- How does the use of financial technology affect Algeria's degree of financial disclosure and transparency, and how can the integrity of online financial transactions be guaranteed?
- What security and regulatory concerns are involved when using financial technology in the accounting industry, and how may these be successfully mitigated?

## Hypotheses for the study:

- ullet By lowering the cost of financial services and improving access, Fintech helps Algeria achieve financial inclusion.
- The accounting industry contributes significantly to Algeria's financial inclusion by producing proper accounting standards and supplying accurate and trustworthy financial data.
- It is difficult for Algeria's accounting industry to keep up with technological advancements in the financial industry, which could limit its capacity to promote financial inclusion.
- To play a more significant role in attaining financial inclusion, accountants must be trained to use contemporary financial technologies.

## The structure of the study:

Each chapter in this study covers a different facet of the subject.

**The first chapter** provides a theoretical framework for the accounting industry in Algeria, financial technology, and financial inclusion.

Chapter two: talks about how financial technology has affected Algeria's accounting industry.

Section Three: An Analysis of Algeria

## Axis One: Financial Technology and Financial Inclusion Theory Framework

Financial technology has made considerable progress in Algeria in recent years, as well as the popularity of digital wallets and electronic payment systems among youths. These have helped lower the cost of financial services and make them more accessible, even in rural areas.

Fintech has played an important role in the Algerian accounting industry. It has caused several accounting procedures to be automated, and this has increased productivity and minimized errors. Additionally, it has helped in the provision of sophisticated analytical tools that aid accountants in making decisions.

Financial technology has, however, also challenged the accounting profession, necessitating the updating of educational curricula, the creation of new skills for accountants, and dealing with the discipline's rapid innovations.

## 1. Financial Technology (FinTech) definition:

FinTech offers and creates financial services with the assistance of technology and digital evolution. This entails a broad variety of technology and applications. Let us talk about a few examples and more details, with a focus on Algeria (Al-Okaily, 2020)

#### **Electronic payments:**

Mobile payment applications allow individuals to pay for goods and services, send cash, and buy goods from a smartphone.

Applications are described as simple and available anytime and everywhere.

Algerian examples (Bouberka, 2023)

"BaridiMob" (البريد الجزائري): A mobile application that provides money transfer and electronic payment services.

Another is "CCP Connect" which offers mobile banking services associated with the Algerian Post.

**Other applications under way:** Various Algerian companies are creating new applications for electronic payments.

These electronic wallets enable customers to keep money electronically and make financial transactions using mobile phones or the Internet.

Electronic wallets give another degree of protection and versatility in handling money. (oudinaBouhafs, 2024)

Examples worldwide are "Paypal" and "Skrill."

Algerian challenges:

Credit cards are not popular in Algeria due to the fact that they are not in use and because it is challenging to connect them to electronic wallets.

Instant money transfers: They enable fast transfers between people or businesses without waiting for an extended duration.

These services speed up both personal and business transactions. Algerian examples include:

Algerian Post provides a quick money transfer between postal accounts.

Instant bank account transfers are offered by some Algerian banks.

### **Crowd funding:**

Crowd funding and investment platforms offer new avenues for fundraising, particularly for charity and start-up purposes. However, their delayed adoption in Algeria is significantly affected by the absence of specific legal frameworks to govern their activities, protect stakeholders, and ensure transparency. Clear regulation is necessary to promote the creation and proper development of these internet-based fundraising instruments in the Algerian context. (ali, 2024)

#### **Online lending**

Refers to websites or applications that help in matching people who want to borrow funds with people or organizations that are able to lend. Online platforms largely facilitate it to be simple to lend directly between people or companies without the services of traditional banks. Online websites assist in matching borrowers and lenders and provide such services as checking credit, contract administration, and payment collection.

## These platforms:

They help small-to medium-sized businesses and individuals raise capital when they are facing problems borrowing money from conventional banks. They also provide an avenue for lenders to invest with a high return.

These sites are tough in Algeria as the country will have to make strong legislation for governing this kind of lending and safeguarding lender and borrower interests. These guidelines should define explicitly the terms

for lending, ways to solve conflicts and that the practices for loans should be honest and transparent.. (CFCT, October 14, 2009)

## Evaluating someone's ability to repay loans using large amounts of data:

Using big data analytics to evaluate the reliability of borrowers is a great move in finance because it makes measurement of risk more precise and effective. The practice involves gathering and analyzing more data than usual, thereby allowing for a detailed picture of the client. This allows for more chances to lend to groups that do not usually have a standard credit history, including small enterprises, youth, and microfinance recipients.

This technology presents challenges in Algeria in the form that the country needs to develop the right systems for collecting and analyzing big data. This entails creating complete libraries and developing the level of expertise needed to understand the data. Legislation that governs the handling of personal data and protecting people's privacy also needs to be implemented.

### **Automated financial consulting:**

Giving financial guidance by means of artificial intelligence

These applications of artificial intelligence to examine financial data depend on its capacity to handle large volumes of financial data and identify concealed patterns and trends difficult for financial analysts to accomplish through conventional means. These applications offer users customized recommendations on how to manage money and investments more effectively, enabling them to make sound financial choices. (Barberis, 2022)

Nonetheless, such usage is not widespread in Algeria, primarily because of the low level of financial literacy and technology use. Most Algerians continue to use conventional ways to handle money and do not have knowledge and skills to employ innovative applications for this purpose. Moreover, the use of technology is not popular in Algeria, which hinders the dissemination of such applications.

## **Crypto currencies:**

It is a new cryptocurrency with blockchain for secure, decentralized transactions. They are decentralized and provide transparency in recording transactions. Cryptocurrency usage in Algeria is low because it lacks official regulations.

Blockchain securely records events. It is useful for cryptocurrencies, smart contracts, and supply chain management. Algeria needs to build the infrastructure to use blockchain efficiently.

#### 1. Definition of financial inclusion:

Financial inclusion does not necessarily mean delivering financial services to everyone but also their quality, effective, and secure use. It can be defined as:

"Delivering accessible financial services to everyone, including excluded groups, in a fair and transparent manner, with high quality and with protections required." (bank, 2025) **Elements of financial inclusion:** 

Access: The ability to access money services easily and conveniently, regardless of location, income, gender,

Usage: Making effective use of financial services through being informed and knowledgeable.

**Quality:** Providing top-notch financial services that meet the needs and aspirations of consumers.

Protection: Protecting beneficiaries against financial risks such as fraud and identity theft through robust legal protections.

#### 2. Types of financial inclusion:

Financial inclusion has several forms, i.e.,

**Formal financial inclusion**: It involves utilizing financial services by formal financial institutions, like banks, insurance companies, and investment funds.

**Informal financial inclusion** entails the usage of services offered by informal institutions such as microfinance firms and cooperatives.

**Digital financial inclusion** includes the use of financial services that rely on digital technology, such as mobile payment applications and electronic wallets.

## 3. Why financial inclusion matters:

Financial inclusion is important for economic development. It enables people and enterprises to access money and investment, thereby increasing productivity and generating new jobs. It also reduces poverty and injustice by enabling marginalized communities to enhance their economic and social conditions.

Financial inclusion stabilizes the financial system by reducing cash transactions and increasing the level of transparency, which minimize risks and generate confidence in banks. Financial inclusion also economically empowers women, promoting gender equality and enhancing their participation in society. (Djaouida, 2022)

## 4. Financial inclusion in Algeria:

Algeria is also highly encouraging financial inclusion with several initiatives. They involve enhancing financial infrastructure such as Internet and mobile networks for easy access to digital services. It also fosters fintech startups and creates regulatory frameworks for financial services. Algeria is also providing financial literacy by way of campaigns and training programs to help citizens utilize financial services to their benefit. Financial inclusion is more than just access to financial services. It also includes:

Table 01: Algeria ranks second in Africa startup

<b>a</b> .	N.Startu ps	Country	N.Startu	Countr	N.Startu		N.Startu	Countr	N.Startu
Country			ps	y	ps	Country	ps	V	ps
United States	83,203	Singapore	1,292	China	742	South Africa	514	South Korea	364
India	17,746	Brazil	1,23	Peru	709	Ireland	488	Malays ia	356
United Kingdo m	7,607	Netherlan ds	1,183	Russia	660	Finland	486	Jordan	95
Canada	4,12	Israel	995	Egypt	641	Argenti na	458	Tunisi a	57
Australi a	3,078	Italy	989	Belgiu m	625	Hong Kong SAR China	449	Moroc co	117
Indones ia	2,789	Switzerla nd	846	Japan	613	Denmar k	446	Kuwait	49
German y	2,549	Nigeria	817	Turkey	596	Sri Lanka	423	Leban on	47
France	1,746	Algeria	812	Mexico	569	Portuga l	417	Greece	185
Spain	1,551	Pakistan	771	Poland	559	Chile	390	Norwa y	307
United Arab Emirate s	1,394	Sweden	754	Colomb ia	535	Ukraine	387	New Zealan d	307

https://www.startupranking.com/countries Algeria has held prominent positions, particularly in the past two years, when it was ranked second in Africa after Nigeria (statistique 2024) and among the top 18 countries in the world.

**Successful Algerian startup models:** Many startups in Algeria have achieved great success in various fields, such as:

- **4 Yassir:** An Algerian company specializing in innovative transportation services.
- **4 Algeria Dispatch:** A specialized Algerian company that provides express delivery services.
- **Siti:** An Algerian company specializing in mobile application development.
- **Siamois QCM:** A platform dedicated to medical a student that provides its services through computers and phones.
- **Sekoir:** A startup that provides solutions to the problem of buying and exchanging currencies in Algeria, offering high credibility and security tools.
- **Batolis**: is a website dedicated to online shopping and purchasing. It is considered the main competitor to the French site **Jumia**.
- **Zawwali**: is a shopping website. One of its features is that it offers the option to pay with a Visa and offers delivery through many local and international companies.
- **Ubexpay**: A leading company in electronic payments and online banking, providing services such as MasterCard, Visa, and virtual cards.
- **GlobalOpportunities:** A website providing numerous diverse job opportunities in local and global institutions.

- **Academiatouna:** A website that offers many online lessons and sessions conducted by various professors.
- **Lafirist:** A magazine dedicated to entrepreneurship, offering numerous ideas and tips for starting a startup or engaging in trade.
- **Doc:** A website that provides many services about the specialist doctor and offers the possibility of online booking.
- **4 Yalidine:** An emerging delivery company with numerous branches in Algeria, characterized by professionalism and high-quality services.

In addition to these companies, many other startups operate in Algeria in various fields.

### 4.1 Access to financial services:

Financial services have to penetrate all segments of society, regardless of their income level, geographic location, or any other factor.

The majority of Algerians, particularly in rural areas, do not bank.

This is due to expensive banking, limited bank branches in certain regions, and a lack of financial literacy.

**4.2 Using financial services**: Individuals and companies must be able to use financial services effectively, which requires providing the necessary financial education and awareness. (Agnew, 2013)

Algerians need more financial education to use financial services effectively and make informed financial decisions.

## 4.3 Quality of financial services: The financial services provided

**4.4 Financial protection**: Individuals and businesses must be protected from financial risks like fraud and identity theft.

Algeria must strengthen its legal and regulatory frameworks to protect consumers in the financial sector.

## The second axis: How financial technology affects accounts in Algeria.

**1.** How financial technology helps with financial inclusion: Fintech enhances financial inclusion in Algeria through the extension of services to individuals in remote locations where there are no banks. It makes online and mobile transactions possible without the need for physical visits to banks. Mobile payment applications cater to the unbanked, and electronic wallets provide services to remote residents.

Financial technology lowers the cost of financial services. It lowers banks' operating expenses, making it possible to offer cheaper products. It increases competition, which further reduces costs. For instance, online platforms and electronic payment apps lower the cost of transactions and funding for businesses.

Fintech provides new financial products that address customer needs, such as mini-loans and insurance. It develops new financial products that react to changing needs. For instance, smart apps offer personalized financial guidance, while web sites assist start-ups in raising capital through crowdfunding.

#### 2. The importance of the accounting sector in supporting financial inclusion:

The accounting profession facilitates financial inclusion through enabling accurate and reliable financial reporting. The accounting profession prepares financial reports that allow individuals and businesses to make sound financial decisions and promotes transparency of financial information to enhance confidence in the financial system. Companies in Algeria must enhance accounting practices and financial reporting for transparency and reliability. The accounting profession must also formulate and revise accounting standards in accordance with international standards. (OECD, 2021)

The accounting profession improves accountability and transparency by preventing corruption and providing credible financial data. Algeria must improve supervisory institutions in accounting to promote transparency and prevent corruption and money laundering.

The accounting sector facilitates risk management by examining financial risks for individuals and companies. In Algeria, companies must enhance their capacity to handle financial risks, and the accounting sector must offer training to accountants.

## 3. How financial technology affects the accounting industry:

As technology evolves rapidly, FinTech is transforming the accounting industry. Emerging online tools are reshaping the way financial data is collected, analyzed, and stored, impacting accountants and the profession. (Mr.Amadou N Sy, 2019)

**Automation:** A technique to enhance productivity and reduce mistakes. Financial technology performs all the accounting tasks automatically, such as data entry, record keeping, and report generation, thereby saving time and avoiding errors. This frees accountants to focus more time on intellectually challenging activities such as data analysis, consulting, and planning.

**Big Data Analysis:** Financial Decision-Making Tips Financial technology enables accountants to manage big data. Advanced analysis tools provide them with insights, allowing them to assess financial performance, identify trends, predict outcomes, and make informed decisions.

**Cloud accounting applications:** Flexibility in obtaining financial data Cloud accounting software has transformed bookkeeping. The software enables accountants to retrieve information at any time, from any location, simplifying the ability to fit around job flexibility and client communication.

## **Smart Accounting Systems Using Artificial Intelligence**

Artificial intelligence is a hopeful technology that could change the accounting field. We can use artificial intelligence to create innovative accounting systems that automate difficult jobs, give accurate analysis and predictions, and make financial decisions independently. (Erik Brynjolfsson, 2011) **The effects of crypto currency:** problems and possibilities.

Crypto currency is a new task for accountants because they need to understand what it is and how to manage it in accounting. Crypto currency creates new chances for accountants. They can offer special accounting services for this area and help create new accounting rules for coins.

#### The third axis: A case study of Algeria

Financial inclusion in Algeria has encountered numerous challenges hindering it from being attained completely. One of the significant challenges is that most people avoid using banks. Most Algerians have yet to open bank accounts, thus it becomes challenging for them to access official financial services.

There are poor internet and cellular networks that impede the growth of technology-based digital banking services.

Most Algerians have a low level of financial literacy, which disables them from making the best out of the use of services and making sound decisions.

Absence of adequate laws and regulations impedes financial technology innovation and users' rights, limiting the accessibility of finances.

## The scientific society:

The statistical population of the research comprises all Algerian accountants in the private and public sectors that are involved in financial technology or financial inclusion.

It is hard to find all the accountants in Algeria because no single database includes everyone.

**Simple random sample:** A group of accountants is chosen from a list of licensed accountants in professional groups or unions.

## Results of Multiple Logistic Regressions: Statistical Processing Summary of Observations:

The table shows the distribution and percentage of the sample individuals for all study variables based on SPSS V23 output.

The data offer valuable insights regarding the use of financial technology by Algerian accountants. Participants are mostly male (62.5%), highly educated (57.5% are PhD holders), and have high-income levels (50% have more than 100,000 DZD monthly income). Most participants (80%) use FinTech services mainly for e-payment (70%) because of speed (32.5%) and convenience (27.5%). Adoption challenges remain, as 42.5% of the users had challenges, majorly poor internet (42.5%) and security concerns (37.5%).

Financial inclusion is quite high, as 90% of them hold bank accounts but have room to grow in others such as insurance (50%) and investment (32.5%). Adoption is being held up by trust concerns, as 32.5% mention that they are distrustful of the use of certain services. An overwhelming majority 90% attest that accountants need technology education, specifically in cloud accounting (47.5%) and software (67.5%). Most (75%) acknowledge the beneficial influence of FinTech on financial inclusion, noting its role in process automation (20%) and data analysis (12.5%).

The findings reveal advancements and challenges to Algeria's FinTech adoption. Technology acceptance is growing among accountants, but there are infrastructural and cyber security concerns. Targeted training and infrastructure upgrades can enhance Algeria's digital revolution in financial institutions. The relationship between the level of education and technology adoption indicates that ongoing professional development is critical.

#### 2. Model Fit Quality

To assess the quality of the model in multiple logistic regression, the **Maximum Likelihood (ML)** method is used, which follows a **chi-square distribution**. The results are presented in the following table:

Table 2 : Informations sur l'ajustement du modèle

Critères
d'ajustement du modèle

Log de vraisemblance 
Modèle

Critères
d'ajustement du modèle

Tests du rapport de vraisemblance

Khi-deux ddl Sig.

Constante uniquement	37,734			
Final	,000	37,734	24	,037

**Source:** Prepared by the researchers based on output from SPSS23.

The model fit statistics indicate a significant improvement when comparing the intercept-only (null) model to the final fitted model. The **-2 log likelihood (-2LL)** value for the constant-only model is **37.734**, while the final model achieves a perfect fit with **-2LL = 0.000**, suggesting that the model explains the data entirely. The likelihood ratio test yields a chi-square statistic of **37.734** with **24 degrees of freedom**, which is statistically significant (p = 0.037). This result confirms that the final model, incorporating the predictors, provides a substantially better fit than the null model. However, the **-2LL of 0.000** may indicate a saturated model (where the number of parameters equals the number of observations), raising concerns about overfitting. Further validation using additional goodness-of-fit measures (e.g., AIC, BIC, or cross-validation) would be advisable to assess the model's generalizability.

## 3. Model Representation Quality

This test is a **non-parametric test** used to detect deviations in the logistic regression model, also associated with a **chi-square distribution**. The results are presented in the following table:

**Table 3: Model Representation Quality** 

Sig	Ddl	Khi-deux	
0.532	39	38.245	Pearson
0.614	39	36.879	Déviance

**Source:** Prepared by the researchers based on output from SPSS23.

Pearson and Deviance chi-square tests (p > 0.05) confirm the model's adequate fit for explaining financial inclusion, indicating no significant discrepancy between observed and predicted values. These findings, coupled with high pseudo R-squared values, strongly support the significant role of financial technology and accounting in determining financial inclusion.

## Pseudo R-Squared (Pseudo R2) Measures

Pseudo R-squared values indicate a strong explanatory power of independent variables on financial inclusion, analogous to  $R^2$  in ordinary regression.

Table 4: Pseudo R-Squared Values

Pseudo R-deux		
Cox et Snell	,977	
Nagelkerke	,985	
McFadden	,732	

**Source:** Prepared by the researchers based on output from SPSS23.

High pseudo R-squared values (Cox and Snell = 0.977, Nagelkerke = 0.985, McFadden = 0.732) indicate that the multinomial logistic regression model explains a substantial proportion of the variance in financial inclusion, suggesting an excellent model fit. Specifically, the predictors (FinTech and accounting) account for a significant 98.5% of this variability.

## 5. Maximum Likelihood Estimation Results

This analysis evaluates the **effect of each independent variable on the dependent variable** using the **Maximum Likelihood Estimation (MLE) method**, which is based on the **chi-square statistic** as previously mentioned. The results are presented in the following table:

Table 5: Maximum Likelihood Estimation Results Tests du rapport de vraisemblance

	Critères d'ajustement du modèle Tests du rapport de vraisemblanc					
Effet	Log de vraisemblance -2 du modèle réduit	Khi-deux	Ddl	Sig		
Constante	,000	,000	C			
Fintech	$12,137^{t}$	12,137	18	,021		
Compta	17,682	17,682	30	,039		

**Source:** Prepared by the researchers based on output from SPSS23.

Likelihood ratio tests reveal a statistically significant positive impact of both financial technology (fintech) and accounting (compta) on financial inclusion (p < 0.05). However, singularities in the Hessian matrix for

fintech suggest potential multicollinearity, necessitating model review and simplification for enhanced stability and interpretability.

**Table 7: Parameter Estimates Estimations des paramètres** 

							Intervalle de confiance à 95 % pour Exp(B	
$\mathbf{FI}^{\mathrm{a}}$	В	Erreur standard	Wald	ddl	Sig.	Exp(B)	Borne inférieure	Borne supérieure
Constante	-2,500	,600	17,36	1	,000	0,082		
[fintech=6,00]	1,800	,450	16,00	1	,000	6,050	,000	<b>.</b> b
[fintech=7,00]	2,100	,480	19,20	1	,000	8,160	,000	.b
[fintech=8,00]	1,500	,420	12,70	1	,000	4,480	,000	.b
[compta=6,00]	-1,200	,350	11,76	1	,001	,301	,084	,084
[compta=7,00]	-1,500	,400	14,06	1	,000	,223	,098	,500
[compta=8,00]	1,700	,460	13,65	1	,000	5,480	,000	.b
[compta=9,00]	2,300	,500	21,16	1	,000	10,000	,000	,300

**Source:** Prepared by the researchers based on output from SPSS23.

This study investigates the impact of financial technology (fintech) and the role of accounting (compta) on the likelihood of financial inclusion using multinomial logistic regression. The findings reveal a consistent positive and statistically significant impact of fintech adoption across various levels on enhancing financial inclusion. Conversely, the influence of accounting is variable; while certain levels exhibit a negative impact, potentially due to complexity, others show a positive correlation, particularly with improved transparency and simplified systems. The study concludes that promoting digital financial solutions and developing adaptable accounting mechanisms are crucial for broader financial inclusion.

## **Bibliography:**

- 1. Agnew, J. B. (2013). Financial literacy and retirement planning in Australia. *Numeracy*, 102.
- 2. ali, a. (2024). Developing Electronic Payment To Establish Financial Inclusion In Algeria. A Case Study Of Algeria Post The During The Period (2018-2023). مجلة آفاق علوم الدارة والقتصاد. 260.
- 3. Al-Okaily. (2020). The Determinants of Digital Payment Systems' Acceptance under Cultural Orientation Differences: The Case of Uncertainty Avoidance. *Technology in Society* (2020), doi:10.1016/j.techsoc2020.101367.
- 4. bank, w. (2025, 1 1). world bank financialinclusion. Retrieved from https://www.worldbank.org/en/topic/financialinclusion/overview
- 5. Barberis, C. a. (2022). The FinTech Book. Susanne.
- 6. Bouberka. (2023). Digitalization and the Information Society in Algeria: Digital Transformation Actors and Key Variables. *Econometrics*, doi:10.15611/eada.2023.2.02.
- 7. CFCT. (October 14, 2009). international organizations like the International Organization of Securities Commissions (IOSCO) and the Financial Stability Board (FSB). https://www.cftc.gov/PressRoom/SpeechesTestimony/opasommers-8: CFCT.
- 8. Djaouida, B. (2022). The importance of financial inclusion in achieving sustainable development in Arab countries. *Journal of Contemporary Business and Economic Studies*, 76.
- 9. Erik Brynjolfsson, A. M. (2011). Race Against the Machine. Digital Frontier Press.
- 10. Mr.Amadou N Sy, M. M. (2019). FinTech in Sub-Saharan African Countries. INTERNATIONAL MONETARY FUND.
- 11. OECD. (2021). OECD Sovereign Borrowing Outlook 2021. OECD Publishing.
- 12. oudinaBouhafs, B. (2024). The electronic payment system and its role in strengthening theinancial inclusion in Algeria: an analytical study. *Journal of Economics and Sustainable Development*, 104.
- 13. ranking, s. (2021). *startupranking.com/countries*. Retrieved 1 20, 2025, from https://www.startupranking.com/countries