

Digital Payments and the Transition from a Cash-Based to a Digital Financial System in LebanonAuthor: Antonella El Jazzar¹*Affiliation:*

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Abstract:

Lebanon has been facing a prolonged financial and banking crisis and turned to a cash-based economy. At the same time, digital payments and financial technologies offer solutions for improved transaction efficiency, financial inclusion, traceability of payments, and increased access to formal financial services. This study aims to explore the trajectory of digital payments in Lebanon and determine whether the evidence from practice suggests a shift towards a more digital finance economy. The paper employs a comparative secondary-data design that primarily relies on World Bank Global Findex Database for Lebanon for 2021 and 2024, complemented with recent reports from International Monetary Fund (IMF), World Bank, and Banque du Liban (BDL). The study uses the percentage of adults who made or received a digital payment as a key indicator and complements it with such variables as account ownership, digital bill payments, online purchasing behavior, and reasons for cash use. The descriptive statistics indicate that the percentage of adults who made or received a digital payment has increased by 7 percentage points between 2021 (14.8%) and 2024 (21.8%). The percentage of account ownership grew slightly between the two time points (21.6% in 2021 and 23.3% in 2024). Nevertheless, the analysis reveals that cash remains deeply embedded in Lebanon's payment ecosystem. For instance, among respondents who indicated that they only use cash for in-store merchant payments, 61.5% attributed their preference to the habit factor, while 22.4% indicated that merchants only accept cash. The findings thus demonstrate that while there is a tendency for increased digital payments, the shift to a cashless economy in Lebanon has not occurred yet. Recent regulatory initiatives from BDL that target electronic money and merchant discount rates, as well as the IMF's interest in reducing Lebanon's reliance on cash, indicate that the formal institutional environment is also undergoing transformations. The paper concludes with a discussion of the implications of the findings for financial institutions, merchants, regulators, and future research.

Keywords:

Digital payments, financial inclusion, cash-based economy, Lebanon, Global Findex, financial system, technology adoption, electronic banking

Introduction:

Payment systems play an important role in modern finance because they provide links between households, firms, the banks, financial institutions, and the wider economy. A financial system that is highly dependent on cash can result in less traceable transactions and less use of formal financial services. Digital payments, including card, mobile, online, and electronic bill payments, represent an alternative channel for money.

The Lebanese context is of particular interest for the study of this transition as the financial crisis there has undermined trust in the banking sector, which favored the shift towards cash. In June 2025, the IMF stated that the restoration of the banking system is now a matter of highest priority since its recovery is seen as a prerequisite for ending Lebanon's current cash-based economy and reviving private-sector credit. In turn, the World Bank has identified the development of digital financial services and interconnected digital payment infrastructure as one of the reform areas for the financial sector development strategy.

At the same time, Lebanon is not a virgin land for digital payments innovations, as the central bank has had regulations concerning electronic banking and payment cards for some time. More recently, in January 2026, Banque du Liban issued Basic Circular No. 1 on Electronic Payment Services Providers, and Basic Circular No. 173 on the merchant discount rate came into force in April 2026. Thus, digital payments are now a finance topic, not only a tech topic.

The research gap that this paper seeks to fill is the current need to connect the empirical evidence on the use of digital payments with the Lebanese transition to a digital-based economy. The Global Findex includes comparable survey indicators for 2021 and 2024 that allow for a descriptive analysis of financial inclusion and digital payments.

Research Questions

1. How did digital payment use among adults in Lebanon change between 2021 and 2024?
2. How did account ownership change over the same period?
3. What evidence in the 2024 data shows continued dependence on cash?
4. What financial and regulatory developments may support the expansion of digital payments in Lebanon?
5. What are the main implications of the observed transition for Lebanon's financial system?

Research Objectives

1. Measure the change in the percentage of adults making or receiving digital payments.
2. Compare account ownership in 2021 and 2024.
3. Describe selected forms of digital financial behavior in 2024.
4. Identify documented reasons for continued cash use.
5. Discuss the implications of digital payments for financial inclusion and the development of Lebanon's financial system.

Literature Review:

Financial inclusion literature typically views access to accounts and payment services as an important aspect of participation in the formal financial system. The Global Findex program measures adults' account access, saving, borrowing, making payments, and managing financial risks. The 2021 Global Findex highlights the role of digital payments in financial inclusion and resilience, whereas the 2025 edition expands the focus to digital connectivity and digital safety (Demiurgic-Kunt et al., 2022; World Bank, 2025). Technology adoption theories also contribute to an understanding of why or why not consumers might transition from cash to digital payments. The Technology Acceptance Model suggests that one's perception of the technology's usefulness and ease of use affect their acceptance of it (Davis, 1989). In a payment context, this means that a consumer is likely to adopt a digital method if it is convenient, reliable, comprehensible, and perceived as useful. Meanwhile, if the method is costly, complex, inaccessible, or unsafe, the adoption can be slow.

Digital payments are a relatively new invention, Beainy and Kamel (2026) examine how cryptocurrency have becoming the new norm instead of being an exception. The entire cultural has become data-driven (Azoury et al., 2024) after the internet revolution in the beginning of the 21st century and the AI surge only increased this revolution. From increasing business performance (Khalife et al., 2024) to reducing risk in vulnerable environments (Athari et al., 2023), the surge of AI in one hand, and the governance on the other has significantly reduced risk and increased company's performance. While human experience and proper internal audit remains essential (Chaanine et al., 2023 ; Saber & Sassine, 2022), AI has significantly improved the financial system and audit practices especially in emerging markets (Sawaya et al., 2026).

Technology can reduce the risk of financial distress by better predicting its occurrence (Elia et al., 2021), the results of this technological adaptation is both on a microlevel, for firms and on a macroscale for countries (Bejjani et al., 2024). Cryptocurrency is already popular in developed countries, and during financial crises it gains popularity also in developing countries (Aoun et al., 2026). However, a major limitation for digital financial systems is their energy requirements, especially in an era where sustainability is essential (Kaspard et al., 2026).

Similarly, the Diffusion of Innovations theory explains the adoption process in terms of how useful, compatible, complex, trailable, and observable the innovation is (Rogers, 2003). This is particularly relevant to the case of Lebanon as the 2024 Global Findex data suggest that the habit keeps driving cash usage (the evidence will be presented below). Thus, it appears that the presence of the infrastructure is not sufficient for adoption to occur, as the users' habits and the merchants' acceptance need to be taken into consideration. The financial crisis in Lebanon adds another institutional layer to the discussion. The IMF (2025) reports that transitioning to a de facto cashless economy was defined as one of the key aspects of the banking-sector rehabilitation process. The World Bank's Lebanon Economic Monitor has also emphasized the importance of digital financial services, interoperable payment infrastructure, data protection, and cybersecurity in financial-sector development. Thus, the literature and institutional evidence identify three interconnected dimensions of financial inclusion in Lebanon: access to accounts, access to and use of digital payment channels, and the level of trust and acceptance on the part of users and merchants. This study focuses on a descriptive comparison of these dimensions based on Lebanon's 2021 and 2024 Global Findex indicators.

Methodology:

this research utilizes a quantitative, descriptive, comparative research design based on secondary data research sources. The primary database for the study is the World Bank's Global Findex Database. The study's cases for the Lebanon benchmark of 2021 account for 1022 respondents, while the Lebanon 2024 sample contains 1010 respondents. The study compares the selected indicators' published distributions for the two (2) survey periods. The study uses the selected indicators for 2024 to describe the current payment behavior.

The dependent concept of this study is measuring the use of digital payments, specifically the indicator 'Made or received a digital payment' (underpayment). The indicators used as the main explanatory and contextual factors are account ownership, use of a card or mobile phone to access an account, digital bill payment, online purchase payment mode, and reasons for using cash. The study focuses on comparing the indicators' distribution and does not estimate any causal regression model since the analysis relies on the indicators' published distribution and not on cross-tabulations of individual respondents' responses.

Variables

Variable	Definition	Year(s)	Use in analysis
Digital payment	Adult made or received a digital payment	2021, 2024	Main outcome indicator
Account ownership	Adult has an account at a financial institution	2021, 2024	Financial inclusion indicator
Card/mobile account access	Used a card or mobile phone to make payments, buy things, or send/receive money from an account	2024	Digital account-use indicator
Digital bill payment	Used a mobile phone or computer to make a bill payment	2024	Digital payment behavior
Online purchase payment mode	Usually paid online, in cash, or both when an online order was delivered	2024	Cash/digital mix
Reason for cash use	Main reason for only using cash for in-store merchant payments	2024	Barrier/habit indicator

Analytical Approach

The results are calculated as percentage-point changes between 2021 and 2024. The relative change in the digital-payment indicator is also calculated as $(2024 \text{ percentage} - 2021 \text{ percentage}) \div 2021 \text{ percentage} \times 100$. The analysis is descriptive and should not be interpreted as evidence that a specific policy or technology caused the change. The two survey samples are also treated as separate cross-sectional observations rather than a panel of the same individuals.

Results:

The results below present the published Global Findex indicators objectively. Percentages are based on valid cases for each indicator and are not necessarily calculated over the same denominator for every question.

4.1 Digital Payment Use and Account Ownership

Indicator	2021	2024	Change (pp)	Relative change
Made or received a digital payment	14.8%	21.8%	7.0	47.3%
Has an account at a financial institution	21.6%	23.3%	1.7	7.9%

Source: World Bank Global Findex microdata for Lebanon, 2021 and 2024. Percentages are published indicator distributions.

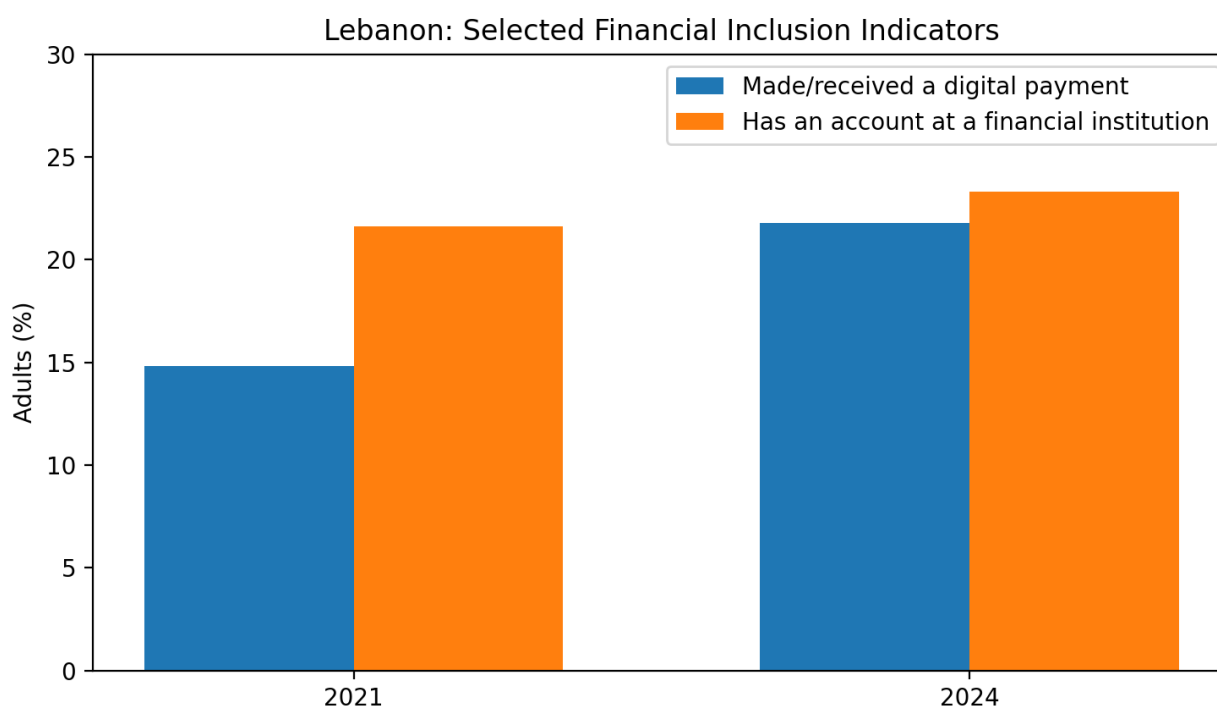


Figure 1. Selected financial inclusion indicators in Lebanon, 2021 and 2024.

The share of adults who made or received a digital payment increased from 14.8% in 2021 to 21.8% in 2024, a rise of 7.0 percentage points. Measured relative to the 2021 level, this represents approximately 47.3% growth. Account ownership increased from 21.6% to 23.3%, or 1.7 percentage points.

4.2 Selected Digital Payment Behaviors in 2024

2024 indicator	Result	Valid cases
Made or received a digital payment	21.8%	1,010
Used a card or mobile phone to access a bank/financial account	43.5%	191
Used a mobile phone or computer to make a bill payment	12.6%	198
Usually paid online for an online order	11.3%	62
Usually paid in cash for an online order	62.9%	62
Used both online and cash for an online order	25.8%	62

Source: World Bank, Global Findex Database 2025, Lebanon 2024 microdata. Valid cases differ by question because many questions are asked only of respondents meeting screening conditions.

4.3 Reasons for Continued Cash Use

Main reason for only using cash in-store	Share	Valid cases
Used to paying by cash	61.5%	156
Merchant only accepts cash	22.4%	156
Do not trust card/phone payments	9.0%	156
Card/phone payment is more expensive	3.8%	156
Other reason	3.2%	156

Source: World Bank, Global Findex Database 2025, Lebanon 2024 microdata, indicator fin25e4.

Discussion and Conclusion:

This study assessed the development of digital payments in Lebanon using comparable Global Findex indicators for 2021 and 2024, together with recently published institutional evidence. The descriptive results revealed an increase in digital payment use from 14.8% to 21.8% of adults, while account ownership increased from 21.6% to 23.3%.

The 2024 data further revealed that digital payment activity occurs across account access, bill payments, and online purchases, although cash remains a dominant payment method in several contexts.

The results have practical implications for the financial sector. Banks and electronic payment service providers may consider reliability, ease of use, security, transparent pricing, and merchant acceptance as priorities. Merchants play a critical role in this context because payment networks become valuable to consumers when they can be used across a diverse set of businesses. Regulators might prioritize interoperability, consumer and cybersecurity protection, and clear regulations for electronic payment providers. The implications align with the recent BDL regulatory developments and the international institutions' emphasis on rebuilding the country's financial system.

There is also a theoretical implication. The persistence of cash habits in the 2024 data is consistent with technology-adoption literature that emphasizes usefulness, ease of use, compatibility, trust, and social and market factors as determinants of adoption. Digital infrastructure may thus be a necessary but not sufficient condition for a complete shift to cashless payments.

The main limitations are the descriptive nature of the analysis, the use of two distinct cross-sectional surveys, and the lack of complete respondent-level relationships in the published indicator pages to estimate causal models. As such, the study does not claim that the increase in digital payments was caused by a specific regulation, technology, or economic event. Future studies might consider using the full respondent-level Global Findex files to estimate logistic regression models of digital-payment adoption by age, gender, education, income, employment, account ownership, and digital connectivity. Future research might also collect Lebanese merchant-level data on payment acceptance, transaction fees, and digital-payment volumes.

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