

Review

Digital Payments and Financial Inclusion: An Integrative Literature Review and Access-to-Use Framework

Yichen Xu^{1,*}
¹ Department of Finance, Wenzhou-Kean University, Wenzhou, China

* Correspondence: Yichen Xu, Department of Finance, Wenzhou-Kean University, Wenzhou, China

Abstract: Digital payments are often viewed as a direct route to financial inclusion, but the evidence is more conditional. This review examines how payment technologies can move individuals from formal access toward sustained and meaningful use of financial services. Drawing on research on mobile money, recent systematic reviews, the World Bank's Global Findex Database, and quasi-experimental evidence from Kenya, it distinguishes digital payments from mobile money and descriptive cross-country evidence from stronger causal evidence. Five issues are examined: access to financial infrastructure, adoption where conventional banking networks are weak, distributional effects, the use of payment accounts for other financial services, and the gap between account ownership and effective inclusion. The evidence supports an access-to-use interpretation. Digital payments can reduce distance and transaction costs and encourage account use. In Kenya, mobile money access has also been linked to stronger risk sharing, saving, occupational change, and poverty reduction. However, these effects cannot be generalized globally. Global Findex data show broad growth in account ownership and digital payment use but are primarily descriptive and cannot establish causality. The review therefore proposes assessing financial inclusion through three stages: formal access, active use, and effective financial benefit. Future research should distinguish payment technologies, improve measurement of independent use and welfare, and apply stronger identification strategies.

Keywords: digital payments; financial inclusion; mobile money; access-to-use; Global Findex

1. Introduction

Digital financial services have changed the way people enter and use formal finance. The change is especially visible in economies where bank branches are sparse but mobile phones and agent networks are widespread. A payment that once required a trip to a bank or a cash-based transaction can now be made through a phone, wallet, card, or account. That change matters for financial inclusion because the payment itself may create a reason for a person to enter the formal financial system.

The important question, however, is not simply whether digital payments are associated with higher financial inclusion. Recent reviews already report a broadly positive relationship, while also finding substantial differences by gender, income, infrastructure, education, regulation, and institutional setting [1]. A second systematic review reaches a similar conclusion in the context of COVID-19: digital payments can accelerate access, but faster adoption does not automatically produce sustainable inclusion [2]. The remaining analytical problem is to understand what happens between the first payment and the eventual financial outcome.

This review addresses that problem by treating financial inclusion as a process rather than a single indicator. It asks whether digital payments help people gain formal access, whether that access becomes regular use, and whether regular use produces a meaningful financial benefit. This distinction also helps reconcile evidence that appears inconsistent. A study that measures account ownership is examining a different margin from a study that measures saving, risk sharing, poverty, or occupational choice.

Received: 03 July 2026

Revised: 18 August 2026

Accepted: 29 August 2026

Published: 01 September 2026



Copyright: © 2026 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

The review also separates digital payments from mobile money. Digital payments is used here as the broader category, covering mobile money, mobile payments, bank-based electronic transfers, digital wallets, merchant payments, and payment-related government or remittance flows. Mobile money is treated as one important delivery model within that category. This distinction is necessary because some of the strongest causal evidence in the literature comes from Kenya's M-PESA system and should not be presented as evidence about every form of digital payment.

Three research questions guide the review:

- RQ1. What does the existing literature show about the relationship between digital payments and financial inclusion, particularly in developing economies?
- RQ2. Through what mechanisms can payment access lead to broader use of financial services?
- RQ3. What theoretical, measurement, contextual, and identification gaps remain?

The review makes a narrower contribution than a systematic review or meta-analysis. It does not claim exhaustive database coverage or a pooled effect size. Its contribution is to organize heterogeneous evidence around an access-to-use framework and make explicit the inferential boundary of each evidence type. The central argument is that digital payments are best understood as a potential gateway into formal finance: access may facilitate use, but neither access nor payment adoption is sufficient evidence of effective financial inclusion.

2. Review Design and Evidence Base

2.1. Review Design and Scope

This paper uses an integrative literature review. The choice is deliberate. The evidence base contains household studies, quasi-experiments, cross-country regressions, descriptive survey evidence, conceptual work, and systematic reviews. These studies do not estimate the same outcome or use the same treatment variable, so combining them into one pooled effect would create a false appearance of comparability.

The review focuses on the relationship between payment technology and financial inclusion. Financial inclusion is treated as multidimensional. Formal access includes account ownership and the ability to make or receive payments. Active use includes repeated transactions and the use of accounts for saving, borrowing, or cash management. Effective financial benefit refers to outcomes such as improved resilience, independent control over funds, and the ability to manage financial shocks. The distinction follows the evidence rather than assuming that one indicator captures the whole concept.

2.2. Evidence Selection

The evidence base was assembled purposively around three criteria: relevance to the digital-payment/financial-inclusion relationship, ability to illuminate a mechanism or outcome in the access-to-use pathway, and methodological value for assessing the strength of an inference. Foundational studies were retained when they established mechanisms that remain important to the current literature, including transaction-cost reduction and risk sharing in Kenya [3,4]. Recent peer-reviewed reviews were used to identify recurring findings and unresolved questions [1,2]. Global Findex reports provide the main cross-country descriptive evidence, while the M-PESA literature provides a comparatively strong causal case. Aguilar et al. add cross-country panel evidence on digital payments, informality, growth, financial inclusion, and credit access[5].

This is not a PRISMA systematic review. No claim is made that all relevant papers were identified, screened, and coded under a reproducible database protocol. That limitation matters because the selection process gives greater weight to influential studies and official datasets. The review is consequently interpretive rather than exhaustive.

2.3. What Different Evidence Sources Can Establish

This comparison is important for the rest of the paper. A rise in account ownership in the Global Findex cannot be interpreted in the same way as an estimate based on a quasi-experimental change in M-PESA access. The former establishes a broad pattern; the latter can speak more directly to a causal mechanism in a particular setting. Treating them as equivalent would overstate the evidence (Table 1).

Table 1. Comparison of Evidence Sources and Their Identification Strengths

Evidence	Design	Main outcome	Strength	Main limitation
Global Findex	Repeated nationally representative surveys	Accounts, payments, saving, borrowing, resilience	Broad international coverage	Mostly descriptive; not a treatment-control design
Jack & Suri [3, 4]	Household evidence in Kenya	Transaction costs, risk sharing	Direct household mechanisms	Kenya-specific setting
Suri & Jack [9]	Quasi-experimental access variation	Consumption, poverty, occupation	Stronger causal identification	Specific technology and institutional setting
Aguilar et al. [5]	Panel regressions, 101 economies	Growth, informality, credit/inclusion	Cross-country scope with controls	Endogeneity and interpretation remain relevant
Shahen & Sharaf [1, 2]	Systematic reviews	Patterns across recent literature	Evidence synthesis	Depends on quality and scope of underlying studies

3. Literature Review and Thematic Findings

3.1. Digital Payments as Access Infrastructure

The first mechanism is a reduction in the cost of entering formal finance. Traditional banking requires physical infrastructure, travel, documentation, and, in many settings, a minimum level of financial capability. Digital channels can lower some of these costs. Arner, Barberis, and Buckley [6] describe fintech as changing the distribution of financial services, while World Bank et al [7]. emphasize the role of digitized wages, transfers, and remittances in bringing people into accounts.

The key point is not that digital payments remove every barrier. They change the reason for using an account. A person who has no reason to visit a bank may still need to receive a wage, transfer, remittance, or merchant payment. When that payment enters an account, the account becomes part of an ordinary economic activity rather than a separate financial product. This is the first step in the access-to-use pathway.

Global Findex data are consistent with this broad expansion. The 2025 edition reports nationally representative information for about 148,000 adults in 141 economies surveyed in 2024, with indicators covering account ownership, payments, saving, borrowing, financial risk, connectivity, and digital safety [8]. The data show a long-run increase in formal account ownership, but the trend alone does not tell us how much of that increase was caused by digital payments rather than income growth, regulation, mobile-phone adoption, government programs, or broader financial development.

3.2. Mobile Money and Financial-Service Leapfrogging

Mobile money provides the clearest example of digital finance operating where conventional banking infrastructure is limited. The model relies on mobile networks and agent outlets rather than a dense branch system. In such environments, users can transfer and store value without first acquiring the full infrastructure associated with conventional banking.

Kenya is the most influential case. Jack and Suri [3] document how M-PESA changed the economics of transferring money, while Jack and Suri [4] find that access to mobile

money improved households' ability to share risk after income shocks. Suri and Jack [9] provide stronger evidence on longer-run outcomes. Their study estimates that access to M-PESA increased per-capita consumption and lifted approximately 194,000 Kenyan households, about 2 percent of households, out of poverty. The effects were larger for female-headed households, with changes in saving, financial resilience, and occupational choice among the mechanisms reported by the authors.

These results are important, but they should not be turned into a general claim about all digital payments. M-PESA is a particular mobile-money system operating in a particular institutional environment. Its agent network, regulatory setting, mobile-phone penetration, and timing of expansion all matter. The correct use of the Kenyan evidence is as a well-identified example of how payment access can produce broader economic effects, not as proof that every digital-payment system produces the same effects.

The wider Findex pattern is compatible with the leapfrogging interpretation. Account ownership in Sub-Saharan Africa increased from 23 percent in 2011 to 58 percent in 2024, and about 40 percent of adults in the region had a mobile-money account in 2024 [8]. These figures show how important mobile money has become, but they remain descriptive. They do not imply that mobile money alone generated the entire increase in financial inclusion.

3.3. Gender and Distributional Effects

Financial inclusion is unevenly distributed, so an aggregate increase can hide important differences across groups. Global Findex data indicate that the gender gap in account ownership in low- and middle-income economies narrowed between 2011 and 2024. Using the 2024 income classification consistently across historical waves, the gap fell from about 10 percentage points to 5 percentage points [8].

The Kenyan evidence gives this pattern a more concrete interpretation. Suri and Jack [9] report that mobile money access was associated with a large reduction in extreme poverty and substantial occupational changes among women. The significance of the result is not simply that women adopted a new technology. The mechanism appears to involve greater financial resilience, saving, and the ability to move away from subsistence agriculture toward business activities.

At the same time, digital access can reproduce existing inequalities. A woman may technically own an account but lack independent control over the phone, the PIN, or the money in the account. Access also depends on network coverage, device ownership, literacy, identification documents, and household bargaining conditions. A narrowing gender gap in account ownership is consequently not the same thing as equal financial control or equal financial welfare.

3.4. From Payment Use to Broader Financial Use

The strongest version of the gateway argument concerns what happens after the first payment. The Global Findex 2021 provides useful evidence on this point. In developing economies, 36 percent of adults received a payment into an account; among recipients, 83 percent also made a digital payment. Almost two-thirds used the account to store money, while roughly 40 percent used the account to save and a similar share to borrow [9].

The pattern is consistent with a sequence: a payment creates the account relationship; repeated use makes the account familiar; and the same account can then support saving, borrowing, or cash management. This is more informative than account ownership alone because it connects payment activity to other dimensions of financial behavior.

There is still an important qualification. Payment recipients are not randomly selected. People receiving wages or government transfers may have higher employment, better access to institutions, or stronger digital skills than people who do not receive payments. The Findex evidence therefore supports the gateway mechanism as a plausible and recurring pattern, but it does not identify a universal causal effect of receiving a digital payment on saving or borrowing.

Aguilar et al. provide another useful perspective [5]. Using panel regressions for 101 economies over 2014–2019, they report that higher digital-payment use is associated with

higher GDP-per-capita growth and lower informal employment, and they find links to greater financial inclusion and credit access. Their design is more demanding than a simple cross-sectional correlation, but it remains a panel-regression study rather than a clean randomized experiment. The results strengthen the case for a relationship while leaving room for endogeneity and broader digital-development effects.

3.5. Account Ownership Is Not the Same as Effective Inclusion

The final stage of the pathway is also the point at which the simple inclusion narrative becomes weakest. An account can exist without being actively or independently used. Global Findex 2021 found that about two-thirds of unbanked adults said they would not be able to use a financial account without help if they opened one. In Sub-Saharan Africa, about one-third of mobile-money account holders reported that they could not use their account without help from a family member or agent [10].

This creates a distinction between formal access and effective access. A person may have an account but depend on another person to complete transactions. The same person may face unreliable connectivity, limited digital literacy, complicated product design, or documentation requirements. The account is formally present, but its economic usefulness is constrained.

There is also a second risk: digital inclusion can create new forms of vulnerability. Fraud, privacy problems, opaque fees, weak consumer protection, and poorly understood digital credit products can impose costs on users who are formally included. Recent reviews of fintech and inclusion increasingly emphasize these risks alongside the access benefits. Inclusion should consequently be evaluated in terms of whether people can use financial services safely and productively, not simply whether they can access them.

4. An Access-to-Use Framework

The evidence reviewed above can be organized into three broad stages, with a fourth stage describing the outcome that ultimately matters. The framework is not presented as a proven causal chain. It is a way of organizing findings that are measured at different points in the process (As shown in Table 2).

Table 2. The Access-to-Use Framework for Digital Financial Inclusion

Stage	Question	Typical indicators	What the evidence supports
1. Formal access	Can people enter formal finance?	Account ownership; ability to receive/make payments	Digital payments can reduce some entry and transaction barriers.
2. Active adoption	Does access become actual use?	Payment frequency; mobile-money use; merchant payments	Adoption depends on infrastructure, usefulness, trust, cost, and digital capability.
3. Wider financial use	Does payment use extend beyond payments?	Saving, borrowing, storing value, cash management	Payment accounts can become platforms for broader financial activity.
4. Effective benefit	Does use improve financial capability or welfare?	Independent use, resilience, control over funds, poverty, occupational outcomes	Stronger evidence exists in some settings, but effects are heterogeneous and context-dependent.

The framework changes how the literature should be read. A paper showing a rise in account ownership is evidence about access. A study showing improved risk sharing is evidence about a later outcome. These findings are not competing estimates of the same effect. They answer different questions.

The framework also clarifies where the evidence is strongest. The broadest evidence comes from Global Findex, which is well suited to measuring changes in access and use across countries. The stronger causal evidence is concentrated in a smaller number of

settings, particularly Kenya. The gap between these two types of evidence is itself a central research problem.

5. Critical Synthesis: What the Literature Can and Cannot Tell Us

5.1. The Causal Inference Problem

The central empirical problem is selection: people and countries that adopt digital payments may already differ from those that do not. They may have better telecommunications infrastructure, higher incomes, stronger institutions, greater education, or more developed financial systems. A positive correlation between payment use and account ownership can consequently reflect these underlying differences.

Global Findex is valuable because it provides comparable survey evidence across a large number of economies and multiple waves. It is not designed, however, to create a treatment group and a control group for digital payments. A five-wave country panel can support fixed-effects analysis, but fixed effects do not automatically solve time-varying omitted variables or reverse causality. A more elaborate regression specification does not by itself establish causality.

The Kenyan M-PESA literature is different. Suri and Jack [9] exploit variation in access to mobile money associated with the geographic expansion of the agent network. Their evidence is consequently much closer to a causal design. Even so, the external-validity question remains. A causal estimate in Kenya identifies the effect of M-PESA access under Kenyan conditions; it does not identify a universal treatment effect for every payment technology or country.

5.2. Digital Payments Versus Mobile Money

The distinction between digital payments and mobile money is more than a terminological issue. Mobile money can substitute for missing banking infrastructure because it is built around mobile networks and agents. Bank transfers and digital wallets may operate within a much more developed banking system. Card payments may improve convenience without changing initial access at all. Government-to-person transfers may create accounts among people who otherwise would not have opened one. These mechanisms should not be assumed to be identical.

Future empirical work should consequently avoid treating all digital-payment indicators as one variable. At minimum, studies should distinguish mobile money, bank-based electronic payments, wallets, merchant payments, remittances, and government-to-person payments. The institutional setting in which a payment technology operates should be treated as part of the mechanism rather than as background information.

5.3. Inclusion Can Be Real without Being Welfare-Enhancing

The positive inclusion story has an important boundary. A person can become formally included and still face high fees, fraud, poor consumer protection, or unsuitable credit products. This does not mean digital payments are harmful overall. It means that inclusion should not be defined so narrowly that any new account counts as success regardless of how the account is used.

This concern strengthens the case for the effective-benefit stage of the framework. If an account improves a household's ability to withstand an income shock, save safely, receive wages, or control its own funds, the case for meaningful inclusion is stronger than if the account is opened but rarely used. The distinction is particularly important for vulnerable groups, for whom the cost of a failed digital transaction or financial scam may be large relative to income.

5.4. Substitution or Complementarity?

Mobile money in Sub-Saharan Africa is often described as a form of leapfrogging because it can provide services without a dense branch network. But substitution is not the only possibility. In countries with mature banking systems, digital payments may complement banks rather than replace them. The same technology can have different effects depending on what infrastructure already exists.

This suggests a useful comparative question: does digital payment adoption matter most where conventional finance is weak, or does it create additional benefits even where formal financial infrastructure is already strong? The answer is likely to vary by payment type, market structure, and regulation. A single global coefficient would conceal this heterogeneity.

6. Theoretical Interpretation

6.1. Transaction Costs and Incentives

Transaction-cost economics provides the most direct explanation for the access stage. Digital payments can reduce travel, waiting, and transfer costs and can make small transactions more feasible. The incentive to open an account is stronger when the account is attached to an immediate economic activity such as receiving wages or transfers.

6.2. Technology Adoption

Diffusion of Innovations and the Technology Acceptance Model help explain why availability does not guarantee use. Rogers [11] emphasizes relative advantage, compatibility, complexity, trialability, and observability. Davis [12] focuses on perceived usefulness and ease of use. Applied to digital finance, these ideas suggest that people are more likely to adopt a payment service when it solves a visible problem and does not require skills they do not possess.

These theories are useful but incomplete. They explain adoption better than they explain changes in saving, risk sharing, or poverty. The economic outcome depends on what users can do after adoption and on the surrounding financial institutions. For that reason, technology-adoption theory should be connected to transaction costs, incentives, information, and institutional quality rather than treated as a complete theory of financial inclusion.

6.3. A Combined Mechanism

Taken together, the theories suggest a simple mechanism. Lower transaction costs and a concrete payment need create an incentive to enter the system. Perceived usefulness and ease of use affect whether the service is adopted. Repeated use creates an opportunity to build a wider financial relationship. Institutional quality, consumer protection, and product design determine whether that relationship produces a meaningful benefit. This sequence is more consistent with the evidence than a single claim that digital payments automatically cause inclusion.

7. Research Gaps and Future Research Agenda

7.1. Theory

The main theoretical gap is the missing link between technology adoption and economic outcomes. Future work should model the transition from payment adoption to financial behavior explicitly. A useful starting point is to combine transaction costs and incentives with technology-acceptance variables and institutional conditions. This would allow researchers to ask not only why people adopt a payment service, but why some users subsequently save, borrow, or become more resilient while others do not.

7.2. Context

The literature remains strongly influenced by Kenya and Sub-Saharan Africa. Comparative evidence from South Asia, Latin America, and other emerging markets is needed because the same technology can operate differently under different banking systems and regulations. Relevant moderators include agent density, mobile-phone ownership, identity systems, competition, consumer-protection rules, internet reliability, and the level of banking-sector development.

7.3. Measurement

Account ownership should not remain the default proxy for financial inclusion. Future studies should distinguish at least three outcomes: formal access, active use, and

effective financial benefit. The third category should include measures such as independent transaction ability, financial resilience, control over funds, saving behavior, and the ability to manage a temporary income shock. Researchers should also record whether users experience fees, fraud, or other forms of digital vulnerability.

7.4. Identification

The most important methodological need is stronger identification. Repeated Global Findex data can support descriptive panels and, under suitable conditions, fixed-effects specifications. Such models should not be presented as causal without an additional source of exogenous variation. More convincing strategies include staggered policy or infrastructure rollouts, natural experiments, randomized interventions, administrative transaction data, and carefully designed instrumental-variable approaches where valid instruments exist.

A related issue is the small number of Findex waves. Five observations over a thirteen-year period do not constitute a dense panel. Researchers should be explicit about the resulting limitations and about missing indicators across waves. The goal should be better identification, not simply a more complicated regression.

7.5. Research Questions

Table 3. Proposed Research Agenda

Dimension	Research question
Mechanism	Under what conditions does receiving or making a digital payment lead to repeated use of formal financial services?
Technology	Do mobile money, bank-based payments, wallets, merchant payments, and government transfers produce different inclusion pathways?
Gender	Does payment access increase women's independent control over funds, rather than only account ownership?
Welfare	When does digital financial access improve resilience, saving, or income opportunities, and when does it create new vulnerabilities?
Institutions	How do regulation, consumer protection, competition, and agent networks change the effect of payment technology?
Identification	Which quasi-experimental designs can separate payment effects from broader digital and financial development?

8. Implications for Policy and Financial Institutions

The evidence suggests that policy should move beyond account-opening targets. Digitizing wages, government transfers, remittances, and other recurring payments can create initial demand for accounts. That first step is valuable, but it is not the final measure of inclusion.

Financial institutions should focus on the usability of the relationship that follows. Simple products, reliable agent networks, transparent fees, consumer protection, and accessible savings and credit products can determine whether an account becomes useful. Digital literacy is equally important. A service that is technically available but difficult to operate independently will not produce the same inclusion outcome as a service that users can understand and control (As shown in Table 3).

For regulators, the relevant metrics should include active use, independent use, complaints, failed transactions, and financial resilience alongside account ownership. This approach also makes policy evaluation more realistic: a program can succeed at opening accounts while failing to create sustained financial use. Measuring both stages makes that distinction visible.

9. Conclusion

The literature does not support a single, universal estimate of the effect of digital payments on financial inclusion. It does support a more careful conclusion. Digital

payments can reduce some of the costs that prevent people from entering formal finance, and they can create a practical reason to open or use an account. In settings where conventional banking infrastructure is weak, mobile money can provide an alternative route into financial services. Kenya offers particularly strong evidence that access to mobile money can have effects beyond payments, including improved risk sharing, saving, occupational choice, and poverty outcomes.

The global evidence is broader but weaker on causality. Global Findex documents substantial growth in account ownership and digital payment use across countries and over time, while also showing persistent differences by gender, income, and digital capability. These data are indispensable for describing the scale of the change, but they should not be used as proof that digital payments caused the change.

A more useful way to read the evidence is as an access-to-use pathway. Formal access is the first stage; active adoption is the second; wider financial use is the third; and effective financial benefit is the outcome that gives inclusion its economic meaning. This framework complements existing reviews by making the inferential distance between these stages explicit: evidence of access should not be treated as evidence of welfare, and evidence from a specific mobile-money system should not be generalized to digital payments as a whole.

This distinction changes the research agenda. The next generation of studies should ask when and why payment access becomes sustained, independent, and economically useful. That requires better measures of effective inclusion, clearer separation between payment technologies, stronger attention to institutional context, and research designs capable of addressing selection and reverse causality. Digital payments matter, but their contribution to financial inclusion depends on what happens after the first transaction.

10. Appendix a. Global Findex Evidence Used in the Review

The cross-country evidence in this review is based on the World Bank's Global Findex Database 2025. The 2025 edition reports comparable survey information for 2011, 2014, 2017, 2021, and 2024. The figures below are official aggregate values and are not simple averages of country percentages. Historical low- and middle-income economy comparisons use the 2024 World Bank income classification, consistent with the 2025 edition [8] (As shown in Table 4).

Table 4. Financial Account Ownership Across Global Findex Waves

Survey year	World account ownership	Low- and middle-income economies	Sub-Saharan Africa
2011	51%	42%	23%
2014	62%	55%	34%
2017	69%	63%	43%
2021	74%	69%	49%
2024	79%	75%	58%

These five waves should not be interpreted as a balanced annual panel. They provide repeated cross-country snapshots, with differences in survey coverage and indicators across waves. For this reason, the figures are used here primarily to establish broad descriptive patterns rather than causal effects.

References

1. A. M. Shahen and M. F. Sharaf, "The role of digital payment technologies in promoting financial inclusion: A systematic literature review," *FinTech*, vol. 4, no. 4, p. 59, 2025, doi: 10.3390/fintech4040059.

2. A. M. Shahen and M. F. Sharaf, "Digital payments as a conceptual pathway linking COVID-19 and financial inclusion: A PRISMA-based systematic review and bibliometric analysis," *Journal of Theoretical and Applied Electronic Commerce Research*, vol. 21, no. 4, p. 108, 2026, doi: 10.3390/jtaer21040108.

3. W. Jack and T. Suri, "Mobile money: The economics of M-PESA," NBER Working Paper No. 16721, National Bureau of Economic Research, Cambridge, MA, 2011, doi: 10.3386/w16721.

4. W. Jack and T. Suri, "Risk sharing and transactions costs: Evidence from Kenya's mobile money revolution," *American Economic Review*, vol. 104, no. 1, pp. 183–223, 2014, doi: 10.1257/aer.104.1.183.
5. A. Aguilar, J. Frost, R. Guerra, S. Kamin, and A. Tombini, "Digital payments, informality and economic growth," BIS Working Papers No. 1196, Bank for International Settlements, Basel, 2024.
6. D. W. Arner, J. N. Barberis, and R. P. Buckley, "The evolution of FinTech: A new post-crisis paradigm?," *Georgetown Journal of International Law*, vol. 47, no. 4, pp. 1271–1319, 2016, doi: 10.2139/ssrn.2676553.
7. World Bank Development Research Group, Better Than Cash Alliance, and Bill & Melinda Gates Foundation, *The opportunities of digitizing payments: How digitization of payments, transfers, and remittances contributes to the G20 goals of broad-based economic growth, financial inclusion, and women's economic empowerment*, World Bank, Washington, DC, 2014.
8. L. Klapper, D. Singer, L. Starita, and A. Norris, *The Global Findex Database 2025: Connectivity and Financial Inclusion in the Digital Economy*, World Bank, Washington, DC, 2025, doi: 10.1596/978-1-4648-2204-9.
9. T. Suri and W. Jack, "The long-run poverty and gender impacts of mobile money," *Science*, vol. 354, no. 6317, pp. 1288–1292, 2016, doi: 10.1126/science.aah5309.
10. A. Demirgüç-Kunt, L. Klapper, D. Singer, S. Ansar, and J. Hess, *The Global Findex Database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19*, World Bank, Washington, DC, 2022.
11. E. M. Rogers, *Diffusion of Innovations*, 5th ed. New York: Free Press, 2003.
12. F. D. Davis, "Perceived usefulness, perceived ease of use, and user acceptance of information technology," *MIS Quarterly*, vol. 13, no. 3, pp. 319–340, 1989, doi: 10.2307/249008.

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of Publisher and/or the editor(s). Publisher and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.