

From Digital Inclusion to Digital Resilience: A Systematic Review of AI-Mediated Informal Micro-Enterprise Systems in Africa

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Highlights

Please indicate how your work links to systems science via your contributions to systems practice, theory, and or methodology.

- The review reframes AI-mediated informal micro-enterprise digitalisation as a socio-technical system linking infrastructure, platform/payment design, algorithmic mediation, adoption and livelihood outcomes.
- It develops a governance-and-risk framework and digital risk lifecycle that connect systems practice with transparency, redress, proportionate verification and operational resilience.

What are the main findings and/or the implications of the main findings?

- Across 60 studies, digital payments and platforms improve market reach, continuity and resilience, but may also produce opaque scoring, fee shocks, account freezes, ranking losses and weak dispute resolution.
- Sustainable inclusion therefore depends on fair, explainable, recoverable and accountable systems, including transparent fees, human appeal channels, timely settlement and outage contingencies.

Abstract

Artificial intelligence, digital payments and platform-based services are reshaping the operating conditions of Africa's informal economy and micro-enterprise sector. While mobile money, digital marketplaces, app-mediated logistics and algorithmic scoring systems are commonly presented as instruments of financial inclusion and enterprise modernisation, their effects on informal traders remain uneven, conditional and under-governed. This systematic review synthesises recent peer-reviewed evidence on AI-mediated digitalisation pathways for informal and micro-enterprises in Africa, with particular attention to mobile money, platform payments, app-based logistics, digital credit, algorithmic management and platform governance. Following PRISMA-informed systematic review procedures, this review analyses 60 peer-reviewed, DOI-bearing articles published between April 2022 and June 2026 through a mechanism–outcome synthesis approach. The final corpus was selected through database searching, duplicate removal, title-and-abstract screening, full-text eligibility assessment, quality appraisal and mechanism–outcome coding. The findings show that digitalisation can expand market access, reduce cash-handling risks, create transaction histories, strengthen customer reach, improve operational continuity and support household resilience. However, the same digital infrastructures may

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also intensify livelihood vulnerability through opaque scoring, unexplained account freezes, fee shocks, exclusionary verification procedures, algorithmic ranking losses, data extraction and weak dispute-resolution mechanisms. The review therefore argues that informal enterprise digitalisation should not be understood only as a technology adoption issue, but as a socio-technical systems governance challenge. The article contributes a governance-and-risk framework linking local infrastructure, platform and payment design, AI (artificial intelligence) mediation, adoption conditions and livelihood outcomes. It further identifies minimum policy and design protections required for inclusive and resilient participation, including transparent fees, proportionate verification, human appeal channels, explainable restrictions, data-use consent, timely settlement and contingency mechanisms during digital outages or erroneous flags. The review concludes that sustainable digital inclusion for African informal micro-enterprises depends not merely on access to digital tools, but on the fairness, transparency, recoverability and accountability of the systems through which traders participate.

Keywords: informal economy; micro-enterprises; digital resilience; digital financial inclusion; platform governance; socio-technical systems; algorithmic mediation

1. Introduction

Informal entrepreneurship remains one of the most important economic and social infrastructures in Africa. It provides subsistence income, food circulation, small-scale repair, transport support, personal services and locally embedded trade in spaces where formal labour markets remain limited. Many micro-enterprises operate outside full registration while still sustaining households and neighbourhood markets, and their movement into digital ecosystems is increasingly mediated by mobile payments, platform marketplaces, app-based logistics and automated scoring systems. In that sense, digitalisation is not only an efficiency agenda. It is also a livelihood governance issue because the business and the household often draw from the same cash flow.

Digitalisation can be enabling. Mobile payments may reduce cash-handling risk, create transaction histories, support stock replenishment and extend consumer reach. Platform marketplaces can expose micro-sellers to customers beyond the immediate street, taxi rank, market or township. Social media advertising and messenger-based orders can give informal traders a low-cost form of visibility. Prior studies show that small-enterprise digitalisation in African settings is shaped by capability, infrastructure and business context [1,2], while Ajide and Osinubi [3], Osabutey and Jackson [4], and Jawadu et al. [5] show that digital technology, mobile money and social media platforms can extend entrepreneurial reach. Yet the same systems also create new forms of dependency. A trader whose sales depend on a payment wallet, a platform ranking or a digital advertising account can lose income when an account is frozen, when fees change, when connectivity fails, or when a risk model classifies activity as suspicious.

The central problem is therefore not whether digital tools are good or bad. The more useful question is how payment and platform infrastructures structure opportunities and risks for micro-enterprises that have weak bargaining power. In the literature, digital financial inclusion is often evaluated through access, usage and macroeconomic association, while platform work is often analysed through labour control, precarity and algorithmic management. Informal entrepreneurship studies, in turn, tend to emphasise survival, legitimacy and business constraints. The resulting evidence base is rich but fragmented. It lacks a consolidated account of how AI-mediated digitalisation works as a

chain of mechanisms linking infrastructure, platform design, algorithmic mediation, adoption and livelihood outcomes.

This review responds to that fragmentation by developing a systematic, mechanism-oriented synthesis of the recent DOI (digital object identifier)-bearing peer-reviewed literature published from April 2022 to June 2026. It treats digitalisation as an information-governance concern rather than as a purely technical adoption issue. The article considers how information systems, data traces, scoring routines, platform interfaces, fee structures and dispute mechanisms shape the possibility of inclusive digital participation. The emphasis is practical as well as conceptual: the aim is to specify governance and design protections that can reduce harm while preserving the inclusion potential of mobile payments and platforms.

The article makes three contributions. First, it integrates the digital financial inclusion, platform work, AI governance and micro-enterprise studies into a single livelihood-risk framework. Second, it distinguishes between access, adoption and sustained use, arguing that micro-enterprise digitalisation becomes inclusive only when traders can understand, contest and recover from platform or payment shocks. Third, it develops a governance-and-risk framework that links local infrastructure, platform/payment design, AI mediation and livelihood outcomes.

Accordingly, this review is guided by three research questions:

RQ1: What AI-mediated digitalisation pathways are available to informal micro-enterprises in Africa?

RQ2: Through what mechanisms do these pathways produce inclusion, exclusion, resilience or livelihood risk?

RQ3: What governance, policy and design protections can shift AI-mediated digitalisation from access-based inclusion toward sustainable digital resilience?

The review also responds to debates on sustainable entrepreneurship, business model innovation and strategic AI adoption by treating informal micro-enterprise digitalisation as a systems-level entrepreneurial resilience issue. Rather than viewing AI adoption only as a formal organisational capability, the article examines how platform payments, algorithmic scoring, digital marketplaces and app-mediated logistics reshape the business models, survival strategies and adaptive capacities of informal African micro-enterprises. In this sense, the paper shows how sustainable entrepreneurship in low-resource settings depends on governance capability, digital recoverability, platform fairness and the capacity of micro-enterprises to adapt to AI-mediated infrastructures. The remainder of the article is structured as follows: Section 2 presents the theoretical framing and conceptualisation, Section 3 details the systematic methodology, Section 4 synthesises the results, Section 5 discusses the findings and limitations, and Section 6 concludes with implications and future research directions.

Ncube and Ngulube [6] highlight the value of institutional capacity, information governance and implementation discipline in developing-country digital contexts; this review adopts a similar concern with how evidence is organised into an accountable scholarly synthesis. The sections move from the research problem to the evidence base, conceptual framing, method, findings and implications, allowing the synthesis to connect bibliographic discipline with a clear conceptual contribution.

2. Theoretical Framing and Conceptualisation

The recent literature frames African digitalisation as uneven, relational and strongly shaped by context. Achieng and Malatji [1] and Ebrahim and Van den Berg [2] show that digital uptake among African small and micro-enterprises depends on institutional support, trust, infrastructure and everyday business routines rather than on technology availability alone. Other studies similarly link uptake to public facilitation, agribusiness con-

straints and information capability [7,8]. This matters because informal traders often work in unstable regulatory and infrastructural environments where payment reliability, mobile data costs, language, device access and consumer trust are immediate business concerns.

Mobile money and digital financial inclusion form the largest body of evidence in the review. Kouladoum et al. [9] and Sarpong and Nketiah-Amponsah [10] argue that digital technologies can widen financial access and support inclusive growth in sub-Saharan Africa. Complementary studies connect digital finance to sustainable development, economic growth and regional inclusion, although they also show that benefits depend on infrastructure, institutional quality and user capability [11–13]. For informal micro-enterprises, these findings suggest that payment access is necessary but insufficient: sustained benefit depends on whether digital finance reduces friction without creating new exposure to fees, delays or opaque risk controls.

The platform literature brings a different but complementary concern. Arriagada et al. [14] and Ayentimi et al. [15] show that platform work can expand income opportunities while reproducing weak labour protection and limited voice. Algorithmic management studies further show that ranking, automated allocation, monitoring and reputation systems reorganise work through data-mediated control [16–18]. Although much of this literature focuses on gig work, its mechanisms are highly relevant to informal sellers who depend on platform visibility, delivery allocation or digital reputation to reach customers.

AI governance studies add a further layer. Ayana et al. [19] and Plantinga et al. [20] argue that responsible AI debates in African contexts must address data sovereignty, local institutional capacity, historical asymmetries and public-interest safeguards. More recent work extends this concern to democratic AI governance, regulatory entrepreneurship and strategy as governance [21–24]. For the present review, these studies are important because informal traders are rarely the direct designers of AI systems, but they may still be classified, ranked, monitored or excluded through algorithmic routines.

A further strand links digital finance to poverty, inequality and household resilience. Ayayi et al. [25] shows that mobile money can strengthen resilience to health shocks in sub-Saharan Africa, while Kadir et al. [26] link financial inclusion to household poverty reduction. Other studies report conditional effects on relative poverty, multidimensional poverty, income inequality and the risk of returning to poverty [27–33]. This evidence is relevant because informal enterprise income and household welfare are closely connected; a payment disruption or account freeze may therefore become a livelihood shock rather than a simple technical inconvenience.

The literature therefore points to a combined inclusion-risk agenda. Bisimwa Cisagara [34] and Lemma and Mlilo [35] show that mobile financial services and mobile money usage can support informal-sector and women-owned business performance. Other recent studies show that digital financial services, mobile money and platform participation may improve stock management, strategic financial management and market reach, but they may also intensify dependency on system rules that traders cannot control [36–39]. The gap is not a lack of evidence on digital inclusion; it is the absence of a consolidated framework that holds inclusion, risk and governance together for informal micro-enterprises.

The review uses a socio-technical framing that combines three lenses: technology–organisation–environment logic, dynamic capabilities and platform governance. Technology–organisation–environment thinking is useful because micro-enterprise digitalisation is never just a technology decision; it depends on the interaction between available tools, business routines and environmental conditions. Dynamic capabilities help explain why some traders adapt to payment or platform changes while others withdraw. Platform governance directs attention to rules, ranking, visibility, dispute resolution and data control

[14,17,18]. Together, these lenses support a framework that treats digitalisation as an evolving governance relationship rather than a one-off adoption event.

The conceptual framework begins with infrastructure and local conditions. These include network reliability, handset quality, electricity access, literacy, language, trader location and municipal tolerance of informal trading. These conditions shape whether digitalisation is feasible before any platform feature is considered. In Cape Town-type commuter corridors, for example, a trader may use mobile payments not because a digital transformation strategy exists, but because customers carry less cash and because robbery risk is high. At the same time, poor connectivity or a flat battery can immediately return the enterprise to cash-based exchange.

The second layer is platform and payment design. Fees, settlement periods, Know Your Customer rules, interface design, data consent and dispute channels determine how digital participation is experienced. A fee that appears small to a formal firm may be material for a trader operating on narrow margins. A two-day settlement delay may not trouble a larger retailer but can prevent a micro-enterprise from buying stock for the following morning. These design features are therefore livelihood variables, not only technical variables.

The third layer is AI mediation. Fraud analytics, transaction scoring, credit assessment, recommendation engines, delivery allocation, ranking and dynamic pricing can all influence participation. In many cases, the trader sees only the outcome: a transaction delay, reduced visibility, a rejected loan, a suspicious activity flag or a sudden request for additional verification. This is where the information-governance contribution becomes visible. The trader's data are transformed into decision signals, but the informational basis of those signals is rarely transparent.

As shown in Figure 1, the proposed framework links four analytical layers to two outcome domains. Camps et al. [40] frame digital entrepreneurship as an evolving field that requires synthesis across innovation, opportunity and governance concerns, while Kahveci [41] connects digital transformation in SMMEs to organisational enablers and performance implications. The framework also draws on recent work on e-governance, informal-sector digitalisation, platform-enabled entrepreneurship and digital transformation support for SMMEs [8,42,43]. The result is a governance-and-risk model that explains how infrastructure and platform design condition AI mediation before inclusion or risk outcomes appear. The four literature streams inform the framework in distinct but connected ways. The digital financial inclusion literature informs the payment-access and financial-participation dimensions by showing how mobile money, digital wallets and transaction histories can widen or restrict economic participation. The platform work literature informs the AI-mediation layer by explaining how ranking, rating, automated allocation, visibility systems and algorithmic management shape trader dependence and bargaining power. The AI governance literature informs the transparency, accountability, consent and redress dimensions by foregrounding fairness, explainability and institutional capacity. The informal entrepreneurship literature informs the livelihood-outcome dimension by showing that business and household cash flows are closely intertwined in micro-enterprise contexts. Together, these streams justify the framework's movement from local infrastructure to platform/payment design, AI mediation, adoption and use, inclusion outcomes and livelihood risk.

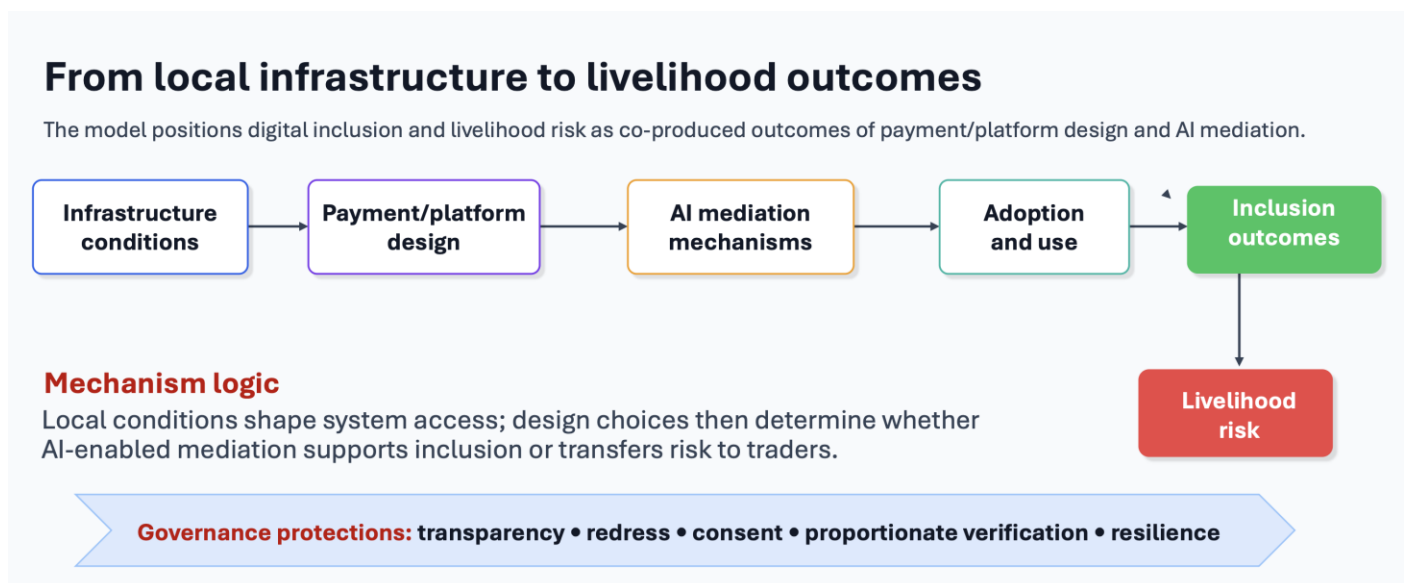


Figure 1. Governance-and-risk framework for AI-enabled informal micro-enterprise digitalisation. Source: Created by the authors for this manuscript (2026).

3. Materials and Methods

This study adopts a systematic literature review methodology, designed to provide a comprehensive, transparent and replicable synthesis of peer-reviewed research on AI-enabled informal economy and micro-enterprise digitalisation in Africa. The review procedure was adapted to the interdisciplinary nature of the evidence base and structured around mechanism–outcome synthesis.

3.1. Search Strategy and Databases

This article is designed as a systematic literature review with thematic synthesis. The review followed PRISMA-informed procedures to identify, screen, assess and synthesise recent peer-reviewed and DOI-bearing literature published between April 2022 and June 2026. The April 2022 start date was selected to capture the post-pandemic acceleration of mobile money, platform work, digital financial inclusion and AI governance debates. The search was updated before submission in June 2026 to avoid a temporal gap between the review window and the manuscript submission date.

The search covered interdisciplinary databases and publisher platforms relevant to information systems, development studies, entrepreneurship, platform studies, finance and governance. These included Scopus-indexed and Web of Science-indexed publications, ScienceDirect, Emerald, Taylor and Francis, Wiley, Springer, Cambridge Core and DOAJ-indexed peer-reviewed outlets where applicable.

Search terms combined four concept blocks: informal economy or micro-enterprise; mobile money, digital payment, fintech, platform, logistics app or digital marketplace; AI, algorithmic management, scoring, fraud analytics, ranking or recommendation; and Africa, sub-Saharan Africa, Global South or developing economies. The search also used backward and forward reference checking if a DOI-bearing article was directly relevant to the review question. The goal was not to exhaust every digital finance paper but to select a coherent corpus capable of explaining mechanisms and outcomes.

The representative Boolean logic used across bibliographic databases and publisher platforms combined the following search blocks: (informal economy OR micro-enterprise OR small enterprise OR SMME) AND (mobile money OR digital payment OR fintech OR platform OR logistics app OR digital marketplace) AND (AI OR artificial intelligence OR algorithmic management OR scoring OR fraud analytics OR ranking OR recommendation).

mic management OR scoring OR fraud analytics OR ranking OR recommendation) AND (Africa OR sub-Saharan Africa OR Global South OR developing economies).

3.2. Inclusion and Exclusion Criteria

The inclusion criteria were: peer-reviewed article; publication date from April 2022 to June 2026; visible DOI; relevance to digitalisation, mobile money, platforms, AI governance or algorithmic control; and direct African relevance. Non-African Global South studies were retained only if they made an explicit comparative, theoretical or mechanism-based contribution to African informal micro-enterprise digitalisation, and such studies were used for conceptual support rather than as primary African evidence. Exclusion criteria were: reports without peer review, preprints without peer-reviewed publication, purely technical AI papers with no social or enterprise relevance, articles without DOI details, and general SMME studies that did not discuss digitalisation mechanisms or livelihood outcomes. The final corpus contained 60 articles.

3.3. Screening and Selection Process

The screening and selection process followed PRISMA-informed stages. Records were first identified through database and publisher-platform searches. Duplicate records were removed before title-and-abstract screening. Records were then screened for publication date, peer-reviewed status, DOI visibility, African relevance, and relevance to informal micro-enterprise digitalisation, mobile money, platform participation, AI mediation, algorithmic governance or livelihood outcomes. Full texts were assessed against the inclusion and exclusion criteria. Articles were excluded at full-text stage if they lacked direct relevance to informal or micro-enterprise digitalisation, did not address digital mechanisms or livelihood outcomes, were purely technical AI studies without social or enterprise relevance, lacked peer-reviewed status, or did not provide sufficient methodological or conceptual transparency.

The final corpus consisted of 60 peer-reviewed, DOI-bearing studies. Figure 2 presents the PRISMA flow diagram showing records identified, duplicates removed, records screened, full texts assessed, full texts excluded with reasons and final studies included in the synthesis.

PRISMA 2020 flow diagram for the systematic review

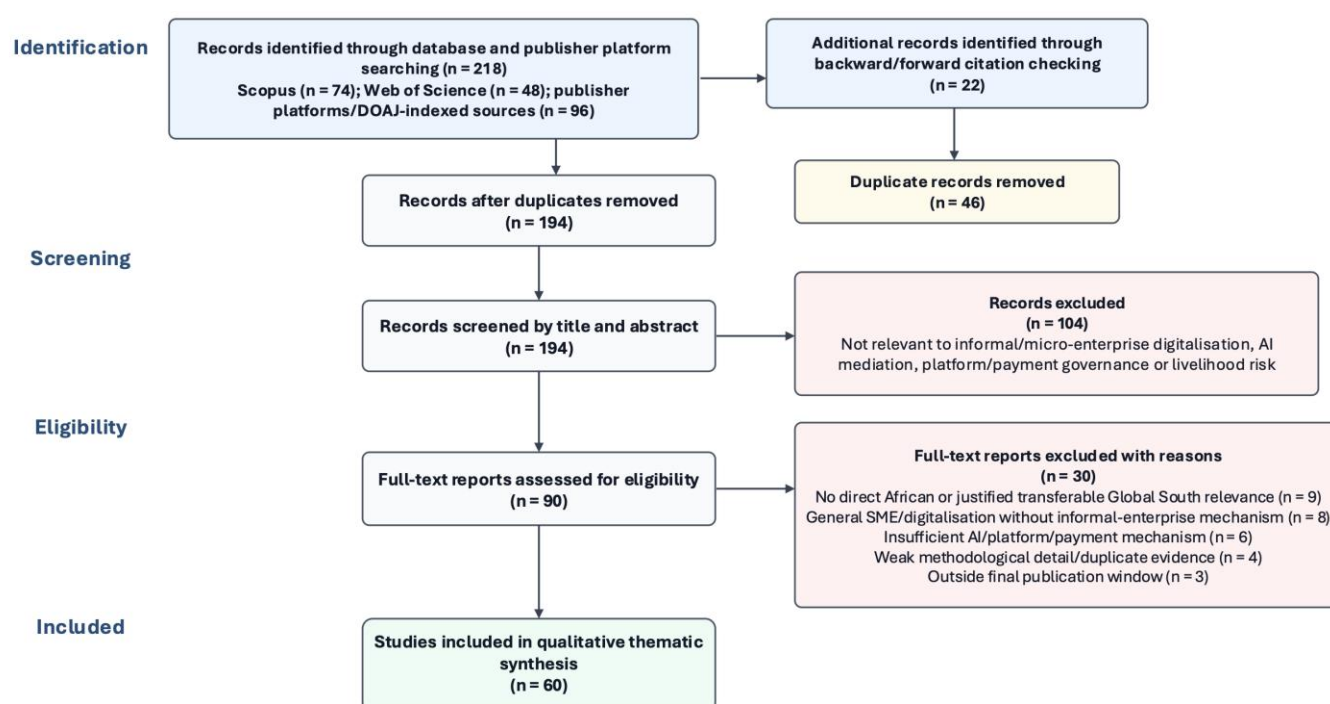


Figure 2. PRISMA flow diagram of study identification, screening, eligibility assessment and inclusion. Source: Created by the authors for this manuscript (2026).

3.4. Quality Appraisal

A structured quality appraisal checklist was used to assess each included study. The checklist considered: (1) peer-reviewed publication status; (2) DOI visibility; (3) clarity of research aim or conceptual purpose; (4) transparency of method or argument structure; (5) relevance to AI-mediated digitalisation, platform participation, mobile money, digital financial inclusion or informal enterprise systems; (6) clarity of context, country or regional setting; (7) evidence of findings, mechanisms or governance implications; and (8) contribution to the review questions. Each study was appraised as high, moderate or contextual relevance. Quality appraisal was not used as a mechanical exclusion tool after eligibility, but it informed the weight given to studies in the narrative synthesis. Empirical studies with stronger methodological transparency were used to support substantive findings, while conceptual and governance-oriented studies were used mainly to support theoretical framing and policy interpretation.

3.5. Data Extraction and Thematic Synthesis

Data extraction captured author, year, source venue, country or region, technology type, enterprise or user group, mechanism, outcome and governance implication. The coding process moved through three stages. First, each article was coded descriptively for technology type and setting. Second, each article was coded analytically for mechanisms, including payment access, transaction visibility, platform ranking, fraud analytics, digital literacy, fee structures and dispute resolution. Third, the codes were reorganised into broader themes: digital pathways, adoption enablers and constraints, livelihood benefits and risks, and governance protections. For descriptive counting, each article was assigned to one primary evidence cluster according to its dominant research focus; cross-cutting contributions were retained in the thematic synthesis.

The review did not conduct a meta-analysis because the evidence base is methodologically heterogeneous. It includes econometric studies of digital financial inclusion, qualitative and mixed-method platform studies, AI governance analyses, entrepreneurship studies and information systems research. A thematic synthesis was therefore more appropriate. The logic is consistent with the aim of generating a conceptual framework rather than a pooled effect estimate.

As shown in Table 1, the review discipline privileges DOI-bearing peer-reviewed sources and mechanism relevance rather than merely accumulating the digitalisation literature. The table clarifies the boundaries of the search and screening process. To strengthen coding reliability, the first author conducted the initial descriptive and mechanism coding, after which the coding structure was reviewed by the co-authors. Discrepancies were resolved through discussion and refinement of the codebook until agreement was reached on the final thematic categories. Consistency was checked by comparing whether each final theme was supported by evidence from more than one literature stream and whether each theme could be traced back to the research questions and extracted study characteristics.

Table 1. Search strategy and eligibility criteria.

Component	Operational Decision	Rationale
Date range	April 2022–June 2026	Captures the post-pandemic acceleration of digital payments, platform dependency and responsible AI governance.
Sources	The Scopus/WoS-indexed and DOI-bearing peer-reviewed literature across information systems, development, entrepreneurship, finance and governance.	Keeps the evidence base close to recognised scholarly indexing routes and reduces unverified grey literature.
Inclusion criteria	Peer-reviewed article; DOI visible; relevant to informal/micro-enterprise digitalisation, mobile money, platforms, AI or algorithmic governance.	Ensures that every reference can be checked through a publisher DOI route.
Exclusion criteria	Reports, preprints, technical AI papers without enterprise relevance, articles without DOI details, and general SMME papers without digital mechanisms.	Protects the manuscript from source inflation and weak relevance.
Synthesis method	Thematic synthesis with mechanism–outcome coding.	Appropriate for mixed evidence where meta-analysis would be methodologically misleading.

Source: Created by the authors for this manuscript (2026).

4. Results

The results are organised in line with the review objectives. They first describe the screening process and corpus composition, then synthesise digitalisation pathways, adoption conditions, livelihood outcomes and governance protections. The emphasis is on mechanisms rather than on merely listing studies. This mirrors the article’s practical orientation: the aim is to show where digitalisation creates value, where it creates risk and what institutional or design interventions can shift the balance toward inclusion.

The 60 studies show clear recent growth in the field. Publications increased from five studies in 2022 (8.3%) to 20 in 2025 (33.3%), while the partial 2026 period contributed 11 studies (18.3%). The corpus is concentrated in digital financial inclusion ($n = 24$; 40.0%), followed by SMME and micro-enterprise digitalisation ($n = 12$; 20.0%), platform work and algorithmic control ($n = 10$; 16.7%), mobile money and enterprise or household performance ($n = 8$; 13.3%), and AI governance in Africa ($n = 6$; 10.0%). This distribution confirms rapid growth but also shows that financial-access research remains more developed than platform-governance and redress research.

4.1. Theme 1: Review Corpus and Evidence Clusters

Table 2 describes the balance of the evidence base. It shows why the review had to integrate finance, platform work, AI governance and entrepreneurship studies rather than rely on one discipline alone. The concentration of digital financial inclusion studies is useful, but it also means that platform harms and dispute-resolution issues require deliberate interpretive attention. The final corpus is interdisciplinary. Digital financial inclusion papers provide the strongest evidence on access and poverty-related outcomes, while platform and AI governance papers provide the strongest evidence on algorithmic opacity, power and accountability. The synthesis therefore proceeds by linking these studies rather than treating them as separate debates.

Table 2. Description of the final review corpus.

Corpus Feature	Pattern Identified	Representative Sources
Digital financial inclusion	Largest cluster; focuses on access, usage, poverty, resilience and macroeconomic inclusion.	Kouladoun et al. [9]; Sarpong and Nketiah-Amponsah [10]; Chinoda and Kapingura [12]; Mashoene [44]; Olaoye et al. [45]
Mobile money and micro-enterprise performance	Evidence connects mobile money to business performance, stockout reduction, women-owned enterprise performance and resilience.	Bisimwa Cisagara [34]; Ayayi et al. [25]; Lemma and Mlilo [35]; Mugoro and Makhura [37]; Nan et al. [38]
Platform work and algorithmic control	Focuses on ranking, control, uncertainty, leakage, labour conditions and power asymmetry.	Arriagada et al. [14]; Van Belle et al. [46]; Kadolkar et al. [17]; Peterlongo and Marrone [18]; Chigbu [47]
AI governance in Africa	Emphasises sovereignty, decolonial governance, responsible AI policy and institutional capacity.	Ayana et al. [19]; Plantinga et al. [20]; Mutung'u [23]; Yilma and Wodajo [24]; Unver [22]
SMME and micro-enterprise digitalisation	Shows that digital uptake depends on literacy, infrastructure, government support, resilience and business value.	Achieng and Malatji [1]; Ebrahim and Van den Berg [2]; Jawadu et al. [5]; Mbatha [7]; Matsieli and Mutula [8]

Source: Created by the authors for this manuscript (2026).

4.2. Theme 2: Digitalisation Pathways and AI Mediation Mechanisms

Table 3 describes the double movement of digitalisation. Each pathway contains a credible inclusion mechanism and a corresponding risk point. This is why the article avoids celebratory digital adoption language and instead asks how systems can be governed for safe sustained use. AI mediation is most visible where micro-enterprise data are converted into risk, ranking, reputation or credit signals. This conversion can generate value, but it also creates the conditions for exclusion if the affected trader cannot understand or contest the decision.

Table 3. Digitalisation pathways and AI mediation mechanisms.

Pathway	Mechanism of Inclusion	AI or Algorithmic Mediation Risk
Mobile money and wallets	Reduce cash handling, enable remote payment, create transaction records and support faster exchange.	Fraud analytics, suspicious activity flags, verification failures and automated transaction monitoring can delay or restrict access.
Social commerce and messaging	Expands visibility through WhatsApp, Facebook, TikTok and local delivery coordination.	Recommendation systems and platform moderation can change reach without explanation.
Marketplace platforms	Connect sellers to wider demand, standardise listings and enable platform-mediated trust.	Ranking, ratings and automated governance can determine visibility and reputation.
App-based logistics	Helps small traders access delivery or courier capacity without owning vehicles.	Dynamic pricing and allocation algorithms may shift costs or reduce service reliability.
Digital credit and scoring	Uses transaction histories to infer repayment capacity and offer working-capital access.	Scoring can reproduce bias, over-price risk or exclude informal traders whose data are thin or irregular.

Source: Created by the authors for this manuscript (2026).

4.3. Theme 3: Adoption Enablers and Constraints

Table 4 describes the adoption conditions most relevant to informal micro-enterprises. It shows that sustained use is not explained by attitude alone. Trust, affordability, capability, infrastructure and regulation combine to determine whether digitalisation becomes routine or remains fragile. The constraints are practical and immediate. A trader may understand the value of a digital wallet but still avoid it if fees are unclear, disputes remain unresolved or mobile data costs reduce already thin margins.

Table 4. Adoption enablers and constraints identified in the synthesis.

Theme	Enablers	Constraints
Trust	Reliable settlement, recognisable provider brands, peer learning and customer demand.	Fear of fraud, unresolved complaints, hidden fees and account freezes.
Affordability	Low entry costs, cheap data bundles, free wallet registration and reduced travel costs.	Transaction fees, withdrawal charges, advertising costs and platform commissions.
Capability	Repeated use, family support, trader associations and digital-skills training.	Low literacy, language barriers, poor interface design and limited troubleshooting support.
Infrastructure	Network coverage, electricity access, smartphones and interoperability.	Connectivity failure, device theft, battery limits and non-interoperable systems.
Regulation and support	Proportionate verification, consumer protection, data protection and platform accountability.	Burdensome Know Your Customer (KYC), unclear responsibility across actors and weak redress channels.

Source: Created by the authors for this manuscript (2026).

4.4. Theme 4: Inclusion Outcomes and Livelihood Risks

Table 5 describes the review's main substantive finding: inclusion and risk travel together. The same transaction history that helps a trader access credit can also expose the trader to automated risk classification or data extraction. The same platform that expands market access can make visibility dependent on opaque ranking. Livelihood risk is not an accidental side effect. It is built into the design of systems that allocate visibility, trust, fees and access through data-mediated routines.

Table 5. Inclusion outcomes and livelihood risks.

Outcome Area	Potential Benefit	Livelihood Risk
Market access	Digital visibility, remote ordering and platform search can connect traders to new customers.	Algorithmic ranking and paid visibility can marginalise smaller sellers.
Financial access	Transaction histories can support credit, savings and business records.	Thin or irregular data may produce exclusionary scoring or expensive digital credit.
Operational continuity	Mobile money and logistics apps can reduce cash theft and improve supply coordination.	Network failure, app outages or account locks can halt trading immediately.
Household Resilience	Digital payments can smooth remittances and health or emergency shocks.	Business-household cash flow becomes exposed when funds are delayed or frozen.
Formalisation pathway	Digital records may help traders engage with suppliers, municipalities or lenders.	Increased visibility may bring compliance demands without corresponding protection or benefits.

Source: Created by the authors for this manuscript (2026).

4.5. Theme 5: Minimum Governance and Design Protections

Table 6 describes the policy and design implications of the synthesis. It translates broad responsible AI and inclusion principles into protections that directly matter to informal traders. The table also clarifies that inclusive digitalisation requires redress and recoverability, not only access. The most relevant protections are concrete, operational and measurable. A policy that promises fairness but offers no appeal route after an account freeze will not protect a micro-enterprise whose working capital is locked inside the system.

Table 6. Minimum governance and design protections for inclusive micro-enterprise digitalisation.

Protection	Practical Requirement	Expected Effect
Transparent fees	Plain-language fee schedules, advance notice of changes and low-value transaction sensitivity.	Reduces margin erosion and allows traders to price goods realistically.
Recoverable accounts	Human escalation, case numbers, time-bound review and emergency release routes for small balances.	Prevents account freezes from becoming household shocks.
Explainable restrictions	Short reasons for adverse decisions and clear steps required to restore service.	Improves trust and reduces fear of arbitrary exclusion.
Proportionate verification	KYC procedures matched to transaction value and informal documentation realities.	Supports inclusion without weakening anti-fraud safeguards.
Data-use consent	Simple data notices explaining scoring, profiling, sharing and retention.	Improves informational dignity and reduces extractive data practices.
Resilience mechanisms	Offline fallbacks, interoperable payments and outage communication.	Allows traders to continue trading during digital shocks.

Source: Created by the authors for this manuscript (2026).

4.6. Theme 6: Digital Risk Lifecycle and Cross-Cutting Governance Concerns

The synthesis also identifies a temporal sequence of risk. Traders first face entry barriers such as documentation, device access and onboarding. They then face transaction risks related to fees, settlement and interoperability. Once usage grows, AI-mediated risk appears through scoring, ranking, fraud flags and targeted offers. When a shock occurs, the decisive issue becomes redress. Figure 3 describes this cycle; digital risk operates as a lifecycle rather than a single event. The figure shows why one-off digital literacy training is not enough. Traders need support at entry, transaction, algorithmic mediation, shock, redress and adaptation stages.

Risk points across the trader's digital journey

The lifecycle highlights why one-off onboarding is insufficient when platform rules, fees and algorithmic decisions change over time.



Design implication: support must cover entry, daily use, algorithmic adverse decisions and recovery after digital shocks.

Figure 3. Micro-enterprise digital risk lifecycle. Source: Created by the authors for this manuscript (2026).

5. Discussion

The findings show that AI-enabled digitalisation should be understood as a livelihood infrastructure. In the reviewed literature, mobile money and platforms frequently appear as inclusion tools, but the synthesis shows that inclusion is conditional. Kouladoum et al. [9], Chinoda and Kapingura [12] and Olaoye [13] demonstrate the inclusion potential of digital finance, while platform and algorithmic management studies show how digital systems can simultaneously generate dependency and uncertainty [15,17,18]. The key point is that access does not automatically become empowerment when rules, fees and risk classifications remain opaque.

5.1. AI-Enabled Digitalisation as Livelihood Infrastructure

The review extends digital financial inclusion scholarship by separating account access from sustained, beneficial use. Much of the financial inclusion literature uses access, usage or macroeconomic correlation as indicators of progress. Those indicators are important, but for informal micro-enterprises they do not capture whether digital use is affordable, reversible, understandable and resilient. This argument aligns with studies that treat inclusion effects as conditional on institutional quality, infrastructure and social context rather than as automatic outcomes of account ownership [10,11,44,48].

The corpus also shows that digital finance is not uniformly progressive across contexts. Kadir et al. [26] and Ayayi et al. [25] report positive but conditional effects on poverty reduction and shock resilience. Other evidence qualifies those gains by showing that the relationship between digital finance, inequality and poverty depends on household characteristics, financial capability, industrial structure and broader policy conditions [27–33]. For informal traders, the implication is that inclusion must be evaluated through continuity, agency and recoverability rather than through access metrics alone.

5.2. Platform Dependency, Digital Bargaining Power and Enterprise Adaptation

The platform studies literature brings the strongest warning about algorithmic dependency. Algorithmic management research shows how ranking, monitoring, automated decision-making and dynamic rule changes can intensify uncertainty. Kinowska and Sienkiewicz [16] specifically connect algorithmic management practices to workplace well-being, while Chigbu [47] situates algorithmic management within the global gig economy. Similar concerns are visible in studies of platform leakage, domestic work and global South platform institutions [49,50]. In the informal economy, these effects can be sharper because traders may lack collective bargaining power, legal support or alternative markets.

The article also contributes to entrepreneurship studies. Digital entrepreneurship is often associated with innovation and growth, whereas informal micro-enterprise digitalisation often concerns survival, risk management and continuity. This is not a lower form of entrepreneurship; it is a different analytical object. The reviewed evidence suggests that micro-enterprises may use digital tools creatively, combining cash, WhatsApp, mobile money, platform leakage, informal delivery networks and family labour. This hybridity should be treated as a strategic adaptation rather than as failed formalisation.

The African emphasis is equally important. Several studies in the corpus are not confined to Africa, but they were retained only where they helped explain mechanisms also visible in African settings. This is particularly relevant to algorithmic management, platform dependency and digital financial inclusion, where the same core mechanisms travel across contexts while their effects are shaped by local institutions. The article therefore avoids treating Africa as a passive site of imported technology. It treats African informal economies as analytical locations where global digital infrastructures are reworked

through cash practices, trader associations, municipal governance, household obligations and local trust relations.

The review also distinguishes between digital access and digital bargaining power. Informal traders may gain access to mobile payments or platform accounts without gaining meaningful influence over the terms of participation. This distinction is crucial because many policy documents treat access as the endpoint of inclusion. The reviewed evidence suggests that access is only the first condition. The more consequential questions are whether the trader can compare fees, challenge an adverse decision, control the use of data, exit without losing customers and maintain trading continuity during digital failure.

A further insight from the corpus is that informal traders do not simply adopt technology; they negotiate the conditions under which technology becomes safe enough to use. Safety here is practical rather than abstract. It includes knowing when settlement occurs, whether a failed transaction can be traced, whether customers trust the receipt, whether the platform can be contacted, whether the data trail can help rather than harm the trader and whether a temporary system failure will close trading for the day. These informational conditions explain why the same tool may be welcomed in one market and resisted in another.

5.3. Epistemological Implications of AI-Mediated Informal Enterprise Digitalisation

The synthesis also has epistemological implications. Much digital transformation research treats informal micro-enterprises as late adopters of formal digital systems, but the reviewed evidence suggests a different interpretation. Informal traders generate situated knowledge about trust, risk, payment reliability, platform dependence and household-enterprise cash flow that is often invisible in formal adoption models. The review therefore adopts a socio-technical and interpretive epistemological position: digital inclusion is not treated as a neutral technical outcome, but as a relational process shaped by infrastructure, institutional power, data classification and everyday livelihood practices. This perspective allows the review to move beyond descriptive adoption analysis and to examine how knowledge about traders is produced through data traces, platform rules and algorithmic classifications. It also shows why African informal enterprise digitalisation must be analysed from the standpoint of local systems, user vulnerability and recoverability, rather than only through global metrics of access or platform growth.

5.4. Information Governance, Transparency and Recoverability

For practice, the findings imply that payment providers and platforms should design for recoverability. A digital system is not inclusive merely because it is cheap to join. It is inclusive when a low-resource user can understand what went wrong, reach a human support channel, recover funds or account access quickly, and continue trading. For policy, the findings suggest that municipal and national enterprise support programmes should include platform literacy, digital rights education and redress navigation alongside conventional training on marketing or bookkeeping.

For information-governance scholarship, the central lesson is that inclusive digitalisation must be read as an information problem as well as a technology problem. Mobile payments, platform accounts and data traces change how traders access information, how institutions classify traders and how traders are able to contest those classifications. This makes data stewardship, accountability and retrieval of explanations part of livelihood protection, not merely compliance language.

The manuscript deliberately keeps the analysis at the level of mechanisms because micro-enterprise digitalisation is often misread when it is reduced to adoption statistics. A wallet registration count can show reach, but it cannot show whether a trader can resolve a failed transaction before needing to buy stock. A platform account can show par-

ticipation, but it cannot show whether the trader understands how visibility is ranked or why a product was removed. A digital credit offer can show financial inclusion, but it cannot show whether the terms are appropriate for irregular income. Mechanism-based synthesis therefore allows the review to connect the promise of digital inclusion with the everyday frictions through which harm emerges.

The review further suggests that regulation should not wait for perfect technical knowledge of algorithms. Many harms can be reduced through ordinary governance measures: clear notice, proportional fees, documented reasons for adverse decisions, human review, and low-cost appeal. For micro-enterprises, the priority is often not full mathematical explainability but usable explanation, timely redress and the ability to continue trading while a dispute is resolved.

The information-governance scholarship contribution is clearest when the review is read as a study of information asymmetry. Platform owners and payment providers know more about the rules, risk models, fee structures and behavioural data than traders do. Inclusive digitalisation therefore depends on reducing that asymmetry. The article consequently positions information access, information quality and information rights as central to the digital transformation of African informal economies.

The synthesis also recognises related evidence on African platform work, algorithmic management and fraud prevention in digital financial markets. Chigbu [47], Al Mehdar et al. [51], and Sayibu et al. [52] reinforce the need to examine platform rules, automated monitoring and trust safeguards together rather than separately.

The broader digital-finance cluster is further supported by work on electronic money accessibility in WAEMU and cross-cultural perspectives on mobile money in Africa [53,54].

5.5. African Policy and Institutional Implications

The AI governance literature strengthens the argument for contextual regulation. African AI governance cannot be imported wholesale from the European Union, North America or China. It must address local infrastructure gaps, language diversity, informal trading practices, cash–digital hybridity and institutional capacity. Ayana et al. [19] and Plantinga et al. [20] provide the most directly African responsible-AI framing, while Unver [22], Mutung'u [23], and Yilma and Wodajo [24] show that digital sovereignty, strategy and democratic governance remain central to African AI policy debates.

Broader finance and digital economy evidence further qualifies these findings. Ananzeh et al. [55] and Chipeta et al. [56] show that fintech and financial inclusion interact with economic development and individual-level conditions. Studies on the digital economy, e-governance and the informal sector also show that digitalisation may support formalisation and economic integration while still reproducing uneven access and uneven bargaining power [42,57–60]. The review therefore treats digitalisation as a contested socio-economic process rather than as a simple development intervention.

5.6. Enterprise Support and Practical Capability Building

Another implication concerns enterprise support. Traditional enterprise-development programmes often emphasise registration, bookkeeping, marketing, financial literacy and business planning. These remain valuable, but the digital economy adds new knowledge requirements. Traders need to understand platform terms, wallet dispute procedures, data permissions, scam indicators, transaction verification and the risks of over-reliance on a single account. Such capabilities are not advanced technical skills; they are practical information rights and routines required for safe participation.

This interpretation also changes how future empirical studies should be designed. A survey of adoption intentions is useful, but it should be joined with questions about ac-

count recovery, complaint pathways, fee surprises, ranking visibility, platform notices, data permission and experience of digital outage. These are not peripheral variables. They are the points at which digital inclusion becomes either a resource for enterprise continuity or a source of livelihood instability.

5.7. Limitations of the Current Evidence Base and Future Research

The review has limitations. First, the evidence base remains uneven. Digital financial inclusion is heavily represented through quantitative studies, while platform governance and informal micro-enterprise studies are more qualitative and context specific. This makes synthesis possible but limits direct comparability. Second, the review uses the DOI-bearing peer-reviewed literature to improve source integrity, but this may exclude relevant working papers, policy reports and local studies that document informal economies in rich detail. Third, not all included articles are Africa-specific. Some Global South evidence was retained where it clarified transferable mechanisms, such as algorithmic control, platform dependency or the poverty effects of digital finance.

The second contradiction concerns platforms. Platforms can create market access, but they can also convert access into dependency. For a trader, the platform may be simultaneously a shopfront, payment rail, reputation system, logistics broker and dispute gatekeeper. Elias and Gomez [50] frame digital platforms as institutional actors in the Global South, while Al Mehdar et al. [51] show the uneven, situated character of platform labour under fair work principles. This concentration of functions means that a small change in ranking, pricing, search visibility or onboarding rules can affect business viability [15,46].

The third contradiction concerns AI governance. Responsible AI principles call for transparency, fairness and accountability, but informal micro-enterprises often experience AI indirectly through payment and platform decisions. This makes conventional consent models weak. Mutung'u [23] warns that regulatory entrepreneurship may threaten digital sovereignty, and Yilma and Wodajo [24] treat strategy itself as a governance instrument. These concerns are reinforced by African responsible-AI scholarship that emphasises local institutional capacity, public-interest accountability and data governance [19–21].

Additional limitations should also be acknowledged, including the possibility of publication bias, as studies reporting positive, significant or policy-relevant digital inclusion outcomes may be more likely to appear in peer-reviewed outlets; geographic concentration, as some African countries and better-researched digital finance ecosystems are more visible in the literature than others; language and source-selection bias, as the English-language and DOI-bearing inclusion criteria may have excluded relevant French, Arabic, Portuguese and local-language studies, as well as policy reports and practitioner evidence that document informal enterprise realities in greater contextual detail; and methodological heterogeneity, since the review synthesises diverse forms of evidence and therefore cannot provide pooled effect estimates or make causal claims across all settings. These limitations reinforce the need for future longitudinal, multilingual and country-comparative studies of informal traders' experiences with mobile money, platforms, AI-mediated scoring, account recovery and dispute resolution.

6. Conclusions

This systematic review examined AI-enabled informal economy and micro-enterprise digitalisation in Africa through a livelihood-risk lens, and the completed PRISMA 2020 checklist used to support the transparent reporting of this review is provided as Supplementary File S1 [61].

It found that mobile payments, platforms and app-mediated services can expand market reach, reduce cash-handling risk, build transaction histories and support resilience. However, the same systems can expose traders to account freezes, unclear scoring,

fee shocks, ranking losses, data extraction and weak dispute resolution. The practical implication is that digital inclusion cannot be measured only by access or adoption. It must be judged by the quality, fairness and recoverability of participation.

The article proposes a governance-and-risk framework that links local infrastructure, platform/payment design, AI mediation and livelihood outcomes. The framework shows that AI mediation sits between design and livelihood outcomes, shaping who is visible, trusted, scored, ranked, charged or excluded. For informal micro-enterprises, the most important protections are not abstract. They include transparent fees, timely settlement, proportionate verification, human appeal channels, notice of rule changes, understandable explanations for restrictions, and resilience mechanisms for outages or erroneous flags.

For information-governance scholarship, the broader contribution is to reposition micro-enterprise digitalisation as an information governance problem. The data generated by informal traders are not neutral traces; they become inputs into decisions that affect livelihoods. An inclusive digital economy therefore requires institutions, platforms and payment providers to treat informal entrepreneurs not as residual users but as rights-bearing economic actors whose informational vulnerability must be addressed.

Supplementary Materials: The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/systems14080890/s1>, Supplementary File S1: Completed PRISMA 2020 Checklist. The checklist was prepared in accordance with the PRISMA 2020 reporting guidance [61].

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Abbreviations

The following abbreviations are used in this manuscript:

AI	Artificial Intelligence
DOI	Digital Object Identifier
KYC	Know Your Customer
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
SMME	Small, Medium and Micro-Enterprise
WAEMU	West African Economic and Monetary Union

References

1. Achieng, M.S.; Malatji, M. Digital transformation of small and medium enterprises in sub-Saharan Africa: A scoping review. *J. Transdiscipl. Res. South. Afr.* **2022**, *18*, a1257. <https://doi.org/10.4102/td.v18i1.1257>.
2. Ebrahim, A.Q.; Van den Berg, C.L. The barriers to technology adoption among businesses in the informal economy in Cape Town. *S. Afr. J. Inf. Manag.* **2024**, *26*, a1872. <https://doi.org/10.4102/sajim.v26i1.1872>.
3. Ajide, F.M.; Osinubi, T. Digital technology usage and entrepreneurship in Africa. *Afr. J. Sci. Technol. Innov. Dev.* **2023**, *15*, 817–830. <https://doi.org/10.1080/20421338.2023.2209476>.
4. Osabutey, E.L.; Jackson, T. Mobile money and financial inclusion in Africa: Emerging themes, challenges and policy implications. *Technol. Forecast. Soc. Chang.* **2024**, *202*, 123339. <https://doi.org/10.1016/j.techfore.2024.123339>.
5. Jawadu, A.; Mtimba, S.A.; Deliwe, A.P. Digital resilience in turbulent times: How small, medium and microenterprises in South Africa use social media advertising platforms. *South. Afr. J. Entrep. Small Bus. Manag.* **2026**, *18*, a1211. <https://doi.org/10.4102/sajesbm.v18i1.1211>.
6. Ncube, M.M.; Ngulube, P. Institutional capacities for sustainable implementation of open-source assistive resources in academic libraries in a developing country. *Inf. Dev.* **2026**, *Epub ahead of printing*. <https://doi.org/10.1177/02666669261442395>.
7. Mbatha, B. Digital divide: A phenomenon of unequal adoption of technology by SMMEs in the agribusiness sector in South Africa. *Commun. J. Commun. Stud. Afr.* **2024**, *43*, 65–75. <https://doi.org/10.36615/vdjgg265>.
8. Matsieli, M.; Mutula, S. The role of government in facilitating digital transformation of SMMEs for economic growth. *Dev. South. Afr.* **2025**, *42*, 630–650. <https://doi.org/10.1080/0376835X.2025.2568855>.
9. Kouladoun, J.C.; Wirajing, M.A.K.; Nchofoung, T.N. Digital technologies and financial inclusion in Sub-Saharan Africa. *Telecommun. Policy* **2022**, *46*, 102387. <https://doi.org/10.1016/j.telpol.2022.102387>.
10. Sarpong, B.; Nketiah-Amponsah, E. Financial inclusion and inclusive growth in Sub-Saharan Africa. *Cogent Econ. Financ.* **2022**, *10*, 2058734. <https://doi.org/10.1080/23322039.2022.2058734>.
11. Tay, L.Y.; Tai, H.T.; Tan, G.S. Digital financial inclusion: A gateway to sustainable development. *Heliyon* **2022**, *8*, e09766. <https://doi.org/10.1016/j.heliyon.2022.e09766>.
12. Chinoda, T.; Kapingura, F.M. Digital financial inclusion and economic growth in Sub-Saharan Africa: The role of institutions and governance. *Afr. J. Econ. Manag. Stud.* **2024**, *15*, 15–30. <https://doi.org/10.1108/AJEMS-09-2022-0372>.
13. Olaoye, O.O. FinTech: A pathway to financial inclusion? Evidence from Southern African Development Community member states. *Afr. Dev. Rev.* **2024**, *36*, 252–265. <https://doi.org/10.1111/1467-8268.12754>.
14. Arriagada, A.; Bonhomme, M.; Ibanez, F.; Leyton, J. The gig economy in Chile: Examining labour conditions and the nature of gig work in a Global South country. *Digit. Geogr. Soc.* **2023**, *5*, 100063. <https://doi.org/10.1016/j.diggeo.2023.100063>.
15. Ayentimi, D.T.; Abadi, H.A.; Burgess, J. Decent gig work in Sub-Sahara Africa? *J. Ind. Relat.* **2023**, *65*, 112–125. <https://doi.org/10.1177/00221856221111693>.
16. Kinowska, H.; Sienkiewicz, L.J. Influence of algorithmic management practices on workplace well-being: Evidence from European organisations. *Inf. Technol. People* **2023**, *36*, 21–42. <https://doi.org/10.1108/ITP-02-2022-0079>.
17. Kadolkar, I.; Kepes, S.; Subramony, M. Algorithmic management in the gig economy: A systematic review and research integration. *J. Organ. Behav.* **2025**, *46*, 1057–1080. <https://doi.org/10.1002/job.2831>.
18. Peterlongo, G.; Marrone, M. Platform work as potential labour: Algorithmic management and everyday uncertainty in Deliveroo and Uber. *Globalizations* **2025**, *Epub ahead of printing*. <https://doi.org/10.1080/14747731.2025.2518705>.
19. Ayana, G.; Dese, K.; Nemomssa, H.D.; Buli, B.G.; Kessa, S.; Akuma, A.O.; Nogueira Reis, T.; Sheehan, M.; Shankar, S.; Kong, J.D. Decolonizing global AI governance: Assessment of the state of decolonized AI governance in Sub-Saharan Africa. *R. Soc. Open Sci.* **2024**, *11*, 231994. <https://doi.org/10.1098/rsos.231994>.
20. Plantinga, P.; Shilongo, T.; Mudongo, O.; Umubyeyi, D.; Gastrow, M.; Razzano, G. Responsible artificial intelligence in Africa: Towards policy learning. *Data Policy* **2024**, *6*, e72. <https://doi.org/10.1017/dap.2024.60>.
21. Mannuru, N.R.; Shahriar, S.; Teel, Z.A.; Wang, T.; Lund, B.D.; Tijani, S.; Pohboon, C.O.; Agbaji, D.; Alhassan, J.; Galley, J.; et al. Artificial intelligence in developing countries: The impact of generative artificial intelligence (AI) technologies for development. *Inf. Dev.* **2025**, *41*, 1036–1054. <https://doi.org/10.1177/02666669231200628>.
22. Unver, H.A. Democratic AI governance: Framing a vision for Africa in view of the EU experience. *Int. Rev. Law Comput. Technol.* **2025**, *40*, 262–284. <https://doi.org/10.1080/13600869.2025.2506924>.
23. Mutung'u, G. Regulatory entrepreneurship's threat to digital sovereignty. *Sci. Public Policy* **2026**, *53*, 289–299. <https://doi.org/10.1093/scipol/scag010>.

24. Yilma, K.M.; Wodajo, K.W. Strategy as governance: The governance of AI in Africa. *Sci. Public Policy* **2026**, *53*, 236–244. <https://doi.org/10.1093/scipol/scag011>.
25. Ayayi, A.G.; Dout, H.; Yekpa, P.; Couchoro, M.K. Impact of mobile money on resilience to health shocks in Sub-Saharan Africa: Evidence from Togo. *J. Knowl. Econ.* **2025**, *16*, 10934–10964. <https://doi.org/10.1007/s13132-024-02305-0>.
26. Kadir, R.D.; Wahyudi, S.T.; Maski, G.; Sumantri, V.D.S. The role of financial inclusion in reducing household poverty: Insights from Eastern Indonesia. *Cogent Econ. Financ.* **2025**, *13*, 2588925. <https://doi.org/10.1080/23322039.2025.2588925>.
27. Lee, C.C.; Lou, R.; Wang, F. Digital financial inclusion and poverty alleviation: Evidence from the sustainable development of China. *Econ. Anal. Policy* **2023**, *77*, 418–434. <https://doi.org/10.1016/j.eap.2022.12.004>.
28. Peng, P.; Mao, H. The effect of digital financial inclusion on relative poverty among urban households: A case study on China. *Soc. Indic. Res.* **2023**, *165*, 377–407. <https://doi.org/10.1007/s11205-022-03019-z>.
29. Soro, K.; Senou, M.M. Digital financial inclusion and income inequality in WAEMU: What causality for what heterogeneity? *Cogent Econ. Financ.* **2023**, *11*, 2242662. <https://doi.org/10.1080/23322039.2023.2242662>.
30. Suhrab, M.; Chen, P.; Ullah, A. Digital financial inclusion and income inequality nexus: Can technology innovation and infrastructure development help in achieving sustainable development goals? *Technol. Soc.* **2024**, *76*, 102411. <https://doi.org/10.1016/j.techsoc.2023.102411>.
31. Wen, C.; Xiao, Y.; Hu, B. Digital financial inclusion, industrial structure and urban-rural income disparity: Evidence from Zhejiang Province, China. *PLoS ONE* **2024**, *19*, e0303666. <https://doi.org/10.1371/journal.pone.0303666>.
32. Xu, F.; Zhang, X.; Zhou, D. Does digital financial inclusion reduce the risk of returning to poverty? Evidence from China. *Int. J. Financ. Econ.* **2024**, *29*, 2927–2949. <https://doi.org/10.1002/ijfe.2812>.
33. Luo, T.; Cheng, Z.; Ma, H. Digital financial inclusion and multidimensional poverty alleviation: Empowering young migrant workers in China. *Economics* **2026**, *20*, 20250185. <https://doi.org/10.1515/econ-2025-0185>.
34. Bisimwa Cisagara, B. Mobile financial services and performance of business in the informal sector. *Afr. J. Sci. Technol. Innov. Dev.* **2025**, *18*, 9–23. <https://doi.org/10.1080/20421338.2025.2582925>.
35. Lemma, T.T.; Mlilo, M. Mobile money usage and performance of women-owned enterprises: Evidence from Kenya. *Investig. Anal. J.* **2026**, *55*, 87–107. <https://doi.org/10.1080/10293523.2025.2503099>.
36. Elliot, E.A.; Cavazos, C.; Ngugi, B. Digital financial services and strategic financial management: Financial services firms and microenterprises in African markets. *Sustainability* **2022**, *14*, 16994. <https://doi.org/10.3390/su142416994>.
37. Mugoro, M.M.; Makhura, M.N. What drives digital finance use in rural Africa? Insights from Ethiopia. *Innov. Dev.* **2025**, *Epublish ahead of printing*. <https://doi.org/10.1080/2157930X.2025.2542637>.
38. Nan, W.; Peng, Y.; Park, M.; Li, T. Mobile money, stockouts and informal microenterprise performance: Evidence from sub-Saharan Africa. *Ind. Manag. Data Syst.* **2025**, *125*, 91–118. <https://doi.org/10.1108/IMDS-04-2024-0289>.
39. Vasishta, P.; Singla, A. Emerging trends in FinTech and financial inclusion: A review and bibliometric analysis. *Afr. J. Sci. Technol. Innov. Dev.* **2024**, *16*, 575–588. <https://doi.org/10.1080/20421338.2024.2353428>.
40. Camps, C.; Kraus, S.; Thomas, A.; Tiberius, V.; Jones, P. Digital entrepreneurship: A review, research synthesis, and development of a framework. *Technol. Soc.* **2026**, *84*, 103124. <https://doi.org/10.1016/j.techsoc.2025.103124>.
41. Kahveci, E. Digital transformation in SMEs: Enablers, interconnections, and a framework for sustainable competitive advantage. *Adm. Sci.* **2025**, *15*, 107. <https://doi.org/10.3390/admsci15030107>.
42. Maiti, D.; Khari, B. Digitalisation, e-governance and the informal sector. *Struct. Change Econ. Dyn.* **2025**, *75*, 451–463. <https://doi.org/10.1016/j.strueco.2025.08.007>.
43. Nkontwana, M. Redesigning entrepreneurial ecosystems in South Africa. *Cogent Bus. Manag.* **2025**, *12*, 2572429. <https://doi.org/10.1080/23311975.2025.2572429>.
44. Mashoene, M. FinTech and financial inclusion in emerging and developing economies: A system GMM model. *Cogent Bus. Manag.* **2025**, *12*, 2491701. <https://doi.org/10.1080/23311886.2025.2491701>.
45. Olaoye, O.O.; Shaddady, A.; Tabash, M.I. Does FinTech enhance the effectiveness of financial inclusion to reduce income inequality? Evidence from Sub-Saharan Africa. *Int. J. Emerg. Mark.* **2026**, *21*, 388–415. <https://doi.org/10.1108/IJOEM-04-2024-0663>.
46. Van Belle, J.P.; Howson, K.; Graham, M.; Heeks, R.; Bezuidenhout, L.; Tsibolane, P.; Du Toit, D.; Fredman, S.; Mungai, P. Fair work in South Africa's gig economy: A journey of engaged scholarship. *Digit. Geogr. Soc.* **2023**, *5*, 100064. <https://doi.org/10.1016/j.diggeo.2023.100064>.
47. Chigbu, B.I. Algorithmic management in the global gig economy: An interdisciplinary systematic literature review and critical discourse analysis. *Front. Sociol.* **2026**, *11*, 1743445. <https://doi.org/10.3389/fsoc.2026.1743445>.

48. Mapurita, M.; Mayoukou, C. Contribution to the measurement of digital financial inclusion in Sub-Saharan Africa. *Borsa Istanbul Rev.* **2024**, *24*, 1227–1247. <https://doi.org/10.1016/j.bir.2024.07.007>.
49. Nhleko, L.; Tame, C. Taking platform domestic work offline: Using platform leakage to resist precarity in South Africa's domestic sector. *S. Afr. Rev. Sociol.* **2023**, *53*, 47–66. <https://doi.org/10.1080/21528586.2023.2206813>.
50. Elias, A.; Gomez, G.M. Digital platforms as institutional actors in the Global South: Evidence from India's informal sector. *Digit. Geogr. Soc.* **2025**, *9*, 100146. <https://doi.org/10.1016/j.diggeo.2025.100146>.
51. Ananzeh, I.E.N.; Khalaf, L.; Khalawi, D. The role of FinTech and financial inclusion in the economic development of countries: A comparative analysis. *Banks Bank Syst.* **2025**, *20*, 248–258. [https://doi.org/10.21511/bbs.20\(1\).2025.20](https://doi.org/10.21511/bbs.20(1).2025.20).
52. Chipeta, C.; Mani, G.; McSharry, P.; Luhanga, E.; Seetharam, Y.; Nyakurukwa, K. Do individual and country-level factors cushion the impact of COVID-19 financial worry on digital financial inclusion in Africa? *Res. Glob.* **2026**, *12*, 100332. <https://doi.org/10.1016/j.resglo.2025.100332>.
53. Lv, J.; Li, S.; Zhu, M.; Huang, W. Can the digital economy development limit the size of the informal economy? A nonlinear analysis based on China's provincial panel data. *Econ. Anal. Policy* **2024**, *83*, 896–921. <https://doi.org/10.1016/j.eap.2024.07.022>.
54. Mashoene, M.K.; Schaling, E. The effect of digital financial inclusion on inclusive growth and poverty in emerging and developing economies: A system-generalized method of moments model. *J. Risk Financ. Manag.* **2026**, *19*, 236. <https://doi.org/10.3390/jrfm19040236>.
55. Mukalayi, M.J.; Inglesi-Lotz, R. Digital financial inclusion and energy and environment: Global positioning of Sub-Saharan African countries. *Renew. Sustain. Energy Rev.* **2023**, *173*, 113069. <https://doi.org/10.1016/j.rser.2022.113069>.
56. Tidjani, C.T.; Madouri, A.M. Fintech, financial inclusion, and sustainable development in the African region. *Front. Appl. Math. Stat.* **2024**, *10*, 1276218. <https://doi.org/10.3389/fams.2024.1276218>.
57. Al Mehdar, B.A.; Geeling, S.; Rizk, N.; Ustek Spilda, F.; Afifi, E.; Budu, J.; Tsibolane, P.; Boateng, R.; Mwakatumbula, H.; Graham, M.; et al. Gendered inequalities of platform work in Africa: Findings from a multi-country analysis. *Platf. Soc.* **2025**, *2*, 29768624251323332. <https://doi.org/10.1177/29768624251323332>.
58. Sayibu, U.; Asante, M.; Abdul-Salam, G.; Frimpong, T. Fraud prediction and prevention in mobile money payment systems: A systematic literature review of text-based detection methods. *Secur. Commun. Netw.* **2025**, *2025*, 8913715. <https://doi.org/10.1155/sec/8913715>.
59. Dianda, P.; Thiombiano, N.; Nezan Okey, M.K. Electronic money accessibility and financial inclusion in WAEMU countries: Does increased access to electronic money lead to greater financial inclusion? *Cogent Econ. Financ.* **2025**, *13*, 2476089. <https://doi.org/10.1080/23322039.2025.2476089>.
60. Jackson, T.; Osabutey, E.L.C. Challenging the bottom-of-the-pyramid narrative in Africa: A cross-cultural management perspective on the impact of mobile money. *Afr. J. Manag.* **2025**, *11*, 343–370. <https://doi.org/10.1080/23322373.2025.2541144>.
61. Page, M.J.; McKenzie, J.E.; Bossuyt, P.M.; Boutron, I.; Hoffmann, T.C.; Mulrow, C.D.; Shamseer, L.; Tetzlaff, J.M.; Akl, E.A.; Brennan, S.E.; et al. The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ* **2021**, *372*, n71. <https://doi.org/10.1136/bmj.n71>.

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