EVIDENCE AND GAP MAP | FULL REPORT

Advancing Agent Networks and Merchant Payments for Financial Inclusion in Low- and Middle-Income Countries (LMICs)

An Evidence and Gap Map

2000-2025 evidence base



RESEARCH PARTNERS

ReFinD Retail Finance Distribution

ISSER Knowledge for Development

ICED The International Centre for Evaluation and Development

2026

About ICED

The International Centre for Evaluation and Development (ICED) is an independent, African-owned and led think tank that works to enhance the generation, synthesis, and uptake of evidence for better policy and action through research, innovation, monitoring and evaluation (M&E). Its vision is a Global South where evidence drives policies and actions to transform lives and livelihoods. Its key priority areas are evaluation, research, and innovation in sustainable development; development of M&E systems and adaptive management for public and private institutions; collaborative and adaptive research management; policy engagement, communication and convening for development; and evaluation capacity strengthening and professional development. ICED has four integrated strategies: tracking the trends and gauging the future of both development and evaluation; mobilizing and expanding thought leadership through research and innovation; engaging and supporting decisionmakers in government, development, business, academia, and civil society; and overseeing and conducting strategic evaluations and research.

ICED has its head office in Nairobi, Kenya, and other offices in Accra, Ghana and the United States of America (USA). In addition, ICED has presence in Kampala, Uganda, Senegal among other countries.

About the report

This final technical report presents the Evidence and Gap Map (EGM) titled “Advancing Agent Networks and Merchant Payments for Financial Inclusion in Low- and Middle-Income Countries”. The report systematically organizes evidence on supply-side interventions that strengthen agent networks and merchant payment systems across low- and middle-income countries. It was produced by ICED with support from the Retail Finance Distribution (ReFinD) initiative at the Institute of Statistical, Social and Economic Research (ISSER), University of Ghana, and financial support from the Gates Foundation. The report is intended to support evidence-informed decisions by policymakers, regulators, funders, practitioners, and researchers.

Acknowledgements

We wish to express our sincere appreciation to all members of the project team for their invaluable contributions to the development and completion of this EGM. Their commitment, technical expertise, collaboration, and dedication were instrumental throughout protocol development, literature searching, screening, data extraction, coding, analysis, interpretation, and preparation of the final report.

Our sincere gratitude goes to Professor Peter Quartey of the ReFinD initiative at ISSER, University of Ghana, for his invaluable guidance, insightful suggestions, and constructive comments throughout the development of the EGM. We thank Dr. Daniel Osarfo, Dr. John Anouku, Dr. Aisha Adam, Dr. Makafui Butu, and Ms. Hannah Afra for their significant contributions to strengthening the quality, relevance, and direction of the work and for their support with screening and coding.

We gratefully acknowledge Seth Gatz for his important contribution to the conceptualization and support of the study. We also thank the ReFinD team at the Institute of Statistical, Social and Economic Research, University of Ghana, together with ReFinD grantees, partners, researchers, policymakers, practitioners, financial-sector stakeholders, and others who contributed valuable perspectives and feedback at different stages of the EGM process.

We are particularly grateful to the Campbell Collaboration for its technical and methodological guidance. Its support helped ensure that the EGM adhered to established standards of rigour, transparency, and quality.

Lastly, we express our deep appreciation to the Gates Foundation through the Retail Finance Distribution programme for the generous financial support that made the development and completion of this Evidence and Gap Map possible.

Project Summary

Introduction

Financial inclusion remains a major development priority in low- and middle-income countries (LMICs), where limited access to formal financial services constrains the economic opportunities of households, small businesses, and underserved populations. Although digital financial services have expanded rapidly, access and effective use remain uneven, particularly in rural and low-income communities. Agent networks and merchant payment systems extend financial services beyond conventional bank branches. Agents provide services such as cash-in and cash-out, account opening, transfers, and bill payments on behalf of financial institutions, while merchants enable customers to make digital payments for goods and services. Together, these systems can improve the reach, convenience, affordability, and use of financial services.

However, their expansion does not automatically ensure sustainable and inclusive financial access. Their effectiveness depends on adequate digital infrastructure, agent liquidity and capacity, network reliability, affordable transaction costs, consumer trust, security, supportive regulation, and a strong enabling environment. Weaknesses in these areas can reduce service quality and disproportionately affect underserved populations. Although a growing body of research examines interventions for strengthening agent networks and merchant payments, the evidence is dispersed across countries, populations, outcomes, and study designs. This fragmentation makes it difficult for policymakers, practitioners, researchers, and funders to identify evidence concentrations, critical gaps, and priorities for policy and investment.

An EGM provides a systematic and transparent approach to organising this evidence. This EGM maps interventions relating to agent and merchant network development, capacity building and institutional strengthening, digital financial infrastructure and innovation, and policy, regulatory, and market enablers. It identifies areas of established evidence and important gaps to inform future research, policy, programming, and investment in financial inclusion across LMICs, specifically Sub-Saharan Africa (SSA), South Asia, Southeast Asia, and South America, which are primary focus regions for the ReFinD programme.

Objectives

The overall objective of this EGM is to systematically identify, organise, and map evidence on interventions that strengthen agent networks and merchant payment systems for financial inclusion in LMICs. It highlights concentrations of evidence and gaps to inform future research, policy, programming, and investment.

Search Methods

A systematic search was conducted across six academic databases and publisher platforms: Web of Science, Scopus, ScienceDirect, JSTOR, Wiley Online Library and Taylor & Francis Online; and three

grey-literature repositories: the International Initiative for Impact Evaluation (3ie) Evidence Portal, the Social Science Research

Network (SSRN) and the ReFinD repository. Searches were supplemented by Google Scholar and OpenAlex through Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI) software, EPPI-Reviewer. Search terms covered agent networks, merchant payments, financial inclusion and related outcomes. Supplementary searches included backward citation tracking, OpenAlex citation and similarity searches, benchmark-paper searches, and targeted searches of key authors. Overall, 36,152 records were identified, of which 8,453 were duplicates, leaving 27,699 unique records for screening.

Selection criteria

Eligibility was guided by an adapted Population, Intervention, Comparator, Outcomes and Study Design (PICOS) framework. Eligible studies examined supply-side interventions designed to develop or strengthen agent networks and merchant payment systems in LMICs and reported outcomes related to access and reach; usage and uptake; quality, reliability and trust; sustainability and market development; or security and equity. Experimental, quasi-experimental, non-experimental and qualitative studies, as well as systematic and scoping reviews, were included. Eligible evidence comprised peer-reviewed and grey literature published in English from 2000 to 2025.

Data collection and analysis

Records were managed, screened, coded, and analysed using EPPI-Reviewer. Of the 36,152 records identified, 8,453 duplicates were removed, leaving 27,699 unique records for title-and-abstract screening. Following the assessment of 977 full-text records, 272 studies met the eligibility criteria and were coded using a piloted data-extraction framework. Screening and coding were conducted independently by two reviewers, with disagreements resolved through discussion or third-reviewer adjudication. Each study was counted once but coded under all applicable intervention, outcome, and study design categories. Frequencies and cross-tabulations were used to identify evidence concentrations and gaps.

The EGM included 272 studies, comprising 242 completed studies and 30 protocols or ongoing studies. Journal articles constituted most of the evidence (n = 185; 68%), followed by published reports and working papers (n = 68; 25%). Non-experimental and quasi-experimental designs were most common (n = 172), followed by qualitative (n = 71) and experimental studies (n = 35); only six reviews were identified. Evidence was concentrated in Sub-Saharan Africa (n = 202), particularly Ghana (n = 67) and Kenya (n = 62), compared with South Asia (n = 44), Southeast Asia (n = 35) and South America (n = 8). Digital Financial Infrastructure and Innovation was the most studied intervention category (n = 177), while Usage and Uptake was the most frequently examined outcome domain (n = 196). Their intersection represented the largest concentration of evidence (n = 135). Evidence was comparatively limited for Security and Surveillance (n = 10), Risk Exposure and Mitigation (n = 13), Transaction Security and Fraud (n = 19), Liquidity Support (n = 21), and Merchant Payment Adoption (n = 25). Consumers and users were the most frequently studied target population (n = 163), whereas aggregators, distributors and super-agents received limited attention (n = 11).

Authors' conclusions

The evidence base on agent networks and merchant payment systems is growing but remains unevenly distributed across regions, interventions and outcomes. Its concentration in Sub-Saharan Africa, particularly Ghana and Kenya, and in digital financial infrastructure and usage outcomes limits the

transferability of findings to other LMIC contexts. Important gaps remain in liquidity support, security and surveillance, fraud and risk mitigation, merchant payment adoption, and the experiences of aggregators and super-agents. The dominance of non-experimental studies and the limited number of reviews constrain conclusions about intervention effectiveness and the conditions under which interventions work. This EGM provides a resource for identifying evidence clusters suitable for synthesis and priority areas requiring further primary research.

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ABBREVIATIONS AND ACRONYMS

3ie	International Initiative for Impact Evaluation
API	Application programming interface
AMSTAR	A Measurement Tool to Assess systematic Reviews
AJOL	African Journals Online
CICO	Cash-in, cash-out
DFS	Digital Financial Services
DiD	Difference-in Differences
EGM	Evidence and Gap Map
EPPI	Evidence for Policy and Practice Information
ICED	International Centre for Evaluation and Development
ISSER	Institute of Statistical, Social and Economic Research
IV	Instrumental Variables
J-PAL	Abdul Latif Jameel Poverty Action Lab
KYC	Know Your Customer
LMICs	Low- and Middle-Income Countries
MNO	Mobile Network Operator
PICOS	Population, Intervention, Comparator, Outcomes, and Study Design
PSM	Propensity Score Matching
POS	Point of Sale
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
RCT	Randomised Controlled Trial
ReFinD	Retail Finance Distribution
RDD	Regression Discontinuity Design
SEA	Southeast Asia
SME	Small and Medium-Sized Enterprise
SSA	Sub-Saharan Africa
SA	South Asia
SSRN	Social Science Research Network
TRF	Title Registration Form

1. Background

Mobile money and other digital financial services (DFS) have become necessary channels for promoting financial inclusion in low- and middle-income countries (LMICs). They have created opportunities for women, low-income households, small and medium-sized enterprises (SMEs), and informal businesses through the expansion of access to payments, savings, credit and insurance, thereby significantly reducing the persistent barriers they face when it comes to formal financial services (Annan et al., 2022; Demirgüç-Kunt et al., 2022; Suri, 2017). However, the availability and use of these services depend not only on users' ability and willingness to adopt digital financial products but also on the supply-side mechanisms that deliver them. Critical components of the supply-side systems are agent networks and merchant payment systems. They serve as the operational infrastructure through which digital finance reaches users and becomes usable in everyday life. Agents provide the physical interface through which users can access services such as cash-in and cash-out, bill payments, remittances, and other routine digital transactions, particularly in communities where formal financial institutions have a limited presence (Senyo et al., 2022). Merchant payments, on the other hand, extend the use of digital financial services beyond person-to-person transfers and cash withdrawals by facilitating digital payments directly between consumers and traders or service providers.

Recent empirical evidence shows that improvements in these supply-side systems can have implications for household welfare. Studies have found, for instance, that greater mobile money agent coverage is associated with increased levels of savings, borrowing, and remittance activity (Aggarwal et al., 2020; Jack & Suri, 2014). Similarly, increased use of DFS has been found to lead to improved empowerment, financial health, and subjective well-being (Kodom et al., 2024; Osarfo et al., 2025). These findings suggest that the functioning of mobile money and the digital financial ecosystem is an important complement to efforts aimed at increasing the adoption and use of digital financial services. Despite this growing body of evidence, important gaps remain in understanding the supply-side determinants of effective and sustainable digital financial service delivery.

Existing studies vary considerably in their geographical settings, interventions, populations, and outcomes, and are often focused on individual programmes, markets, or components of the digital finance ecosystem. Moreover, much of the broader financial inclusion literature has concentrated on demand-side issues, including adoption, usage, and user-level welfare effects, with comparatively less attention to the supply-side structures and operational conditions that enable these outcomes. Consequently, the available evidence provides limited consolidated understanding of how different aspects of agent networks and merchant payment systems, including network design, merchant acceptance, liquidity management, infrastructure, incentives, and expansion strategies, affect access, usage, service quality, sustainability, and broader ecosystem development across LMICs. Understanding these relationships is important as policymakers, financial service providers, and development actors seek to expand mobile money and other DFS in ways that are sustainable.

To help address these gaps, the Retail Finance Distribution (ReFinD) initiative was established to support rigorous and collaborative research on the delivery of retail financial services in LMICs. Within this broader agenda, this Evidence and Gap Map (EGM) systematically maps and organises empirical literature on agent networks and merchant payments. The EGM brings together evidence across interventions, outcomes, and contexts to provide a structured overview of where evidence is concentrated, where findings remain limited, and where important evidence gaps persist.

The EGM serves as a tool for identifying priorities for future research and policy experimentation. By making the distribution of available evidence and evidence gaps visible, it can support researchers, policymakers, practitioners, and other stakeholders in identifying areas where further investigation is needed and in considering approaches to strengthen the reach, resilience, quality, and inclusiveness of digital financial service delivery in LMICs.

More broadly, the study contributes to the emerging evidence base on the supply-side drivers of financial inclusion. It complements existing research (that has largely focused on demand-side issues) by providing a systematic and visual representation of the available evidence. The resulting evidence base can inform future research, programme design, and policy decisions that aim at enhancing the delivery of digital financial services to underserved and vulnerable populations across LMICs.

1.1 The intervention

This EGM focuses on supply-side interventions aimed at developing or strengthening the systems and actors that enable digital financial inclusion. Based on a review of the extant literature, this EGM categorised the interventions into four broad categories: agent and merchant network development; capacity building and institutional strengthening; digital financial infrastructure and innovation; and policy, regulatory, and market enablers. The choice of these interventions hinges on their ability to enhance the efficient delivery of financial services in LMICs, particularly to the last mile in rural and underserved areas in Sub-Saharan Africa, South Asia, Southeast Asia, and South America. These four major categories of interventions are further classified into subcategories, along with their corresponding definitions and examples (see Table 1 for descriptions).

- Agent and merchant network development: These interventions are aimed at strengthening and expanding agent and merchant networks to improve the availability, accessibility, and reliability of digital financial services, particularly in underserved and rural areas. Subcategories of this intervention include network expansion and reach, liquidity support, and infrastructure support.
- Capacity building and institutional strengthening: These are interventions designed to improve the knowledge, skills, organizational capacity, and operational effectiveness of agents, merchants, network operators, and relevant institutions. This includes interventions related to training and skills development and institutional and regulatory capacity support.
- Digital financial infrastructure and innovation: They are interventions that strengthen the technological and digital systems underpinning financial service delivery and promote new or improved products and services. They include interventions related to technology and system modernization, product and service innovation, and security and surveillance.
- Policy, regulatory, and market enablers: This refers to interventions that create a supportive policy, regulatory, consumer, and market environment for the effective and sustainable development of agent and merchant networks. This includes interventions on regulatory reforms and policy frameworks, consumer protection and risk management, and market development and incentives.

1.2 Rationale for the EGM

The available evidence on agent networks and merchant payments is fragmented across contexts, interventions, and outcomes. This fragmentation does not allow for a comprehensive view of the nature and texture of the available literature or evidence.

Developing an EGM around this theme is important because it helps provide a systematic or structured means of organizing and visualizing the literature available across various dimensions. More importantly, the EGM draws perspectives from the supply-side mechanisms of the digital financial inclusion literature – focusing on the actors and conditions that promote digital financial services to reach users effectively.

The EGM captures evidence on interventions related to agent and merchant network development, capacity building and institutional strengthening, digital financial infrastructure and innovation, and policy, regulatory, and market enablers. These interventions are mapped against key outcomes such as access and reach, usage and uptake, service quality, sustainability, and ecosystem development. This structure of mapping allows for the investigation of what interventions have been studied as well as which outcomes and contexts have received attention and where evidence is limited. By bringing light to areas of evidence concentration and making areas with gaps visible, the EGM can identify priorities for future research, policy experimentation and programme development. The supply perspectives from this EGM also contribute to the literature on understanding how supply-side interventions may influence the accessibility, reliability, and sustainability of digital financial ecosystems.

1.3 Existing EGMs and relevant systematic reviews

Although there are existing EGMs and systematic reviews on financial inclusion and digital finance, they differ significantly from the focus of the present EGM. The most directly relevant EGM is that produced by Mader et al. (2022), which maps evidence on the enablers, barriers, and impacts of digital financial services (DFS), including a focus on taxation. While this EGM includes agent networks and merchant payments as part of its scope, it does so from a demand-side perspective, emphasising end-user adoption, usage, and welfare impacts rather than the supply-side mechanisms and operational structures that ensure the delivery of these services.

Several systematic reviews have also examined related themes. Buri, Cull, and Giné (2023) conduct a review of evidence on agent banking, focusing on the expansion of agent networks and their impacts on savings and credit access among low-income clients. Adaba and Chang (2026) provide a systematic review of mobile money research, developing a multilevel framework, and a research agenda. Hornuf, Safari, and Voshaar (2025) conduct a systematic literature review and meta-analysis of mobile fintech adoption in Sub-Saharan Africa, concluding that perceived ease of use and perceived usefulness are the most important adoption drivers and identifying a lack of research on how the supply side drives fintech adoption. Khando, Gao, and Petersson (2025) systematically review the factors shaping merchant adoption of cashless payment systems using the Technology-Organization-Environment (TOE) framework. These reviews provide valuable syntheses of demand-side adoption factors, agent banking impacts, and merchant acceptance determinants.

However, to the best of our knowledge, no existing EGM or systematic review has systematically examined agent and merchant payment systems through a supply-side perspective. The existing evidence syntheses predominantly focus on end-user outcomes or demand-side adoption determinants. They do not map the full range of supply-side interventions such as agent network development, capacity building, institutional strengthening, digital financial infrastructure, and innovation, that strengthen the operational enablers within the digital financial inclusion ecosystem. Furthermore, the reviews that do examine agents or merchants tend to concentrate on a single channel (e.g., agent banking) or a single actor (e.g., merchants), rather than treating agent networks and merchant payment systems as interconnected components of the same supply-side infrastructure.

The present EGM addresses this gap by systematically mapping supply-side interventions that strengthen agent networks and merchant payment systems for financial inclusion in LMICs. It maps the four intervention categories against five outcome domains: access and reach; usage and uptake; quality, reliability and trust; sustainability and market development; and security and equity outcomes. This provides an accessible evidence base that complements existing demand-side reviews and EGMs.

1.4 Objectives

1. Systematically identify and map existing evidence on the development of agent networks and merchant payments in LMICs, specifically Sub-Saharan Africa (SSA), South Asia, Southeast Asia, and South America, which are primary focus regions for the ReFinD programme.
2. Identify gaps in the current literature and prioritize areas for further research and intervention.
3. Facilitate evidence-based decision-making among policymakers, practitioners, and researchers.
4. Assess trends in the volume and nature of studies commissioned before and after the ReFinD initiative to understand its contribution to the research ecosystem on agent networks in LMIC

2. Methods

2.1 Definition and purpose of an EGM

EGMs are systematic outputs of evidence synthesis that visually represent the existing body of evidence relevant to a defined set of research or policy questions (Snilstveit et al., 2013; White et al., 2020). Rather than pooling effect sizes, as some systematic reviews do, an EGM identifies, categorises, and displays available studies according to key dimensions of interest, most commonly interventions and outcomes, so that users can readily see where evidence is concentrated and where it is thin or absent (Snilstveit et al., 2013; White et al., 2020).

An EGM is typically presented as a two-dimensional matrix, with intervention categories arranged as row headings and outcome categories arranged as column headings (Snilstveit et al., 2013; White et al., 2020). Each cell of the matrix corresponds to a specific intervention-outcome pairing, and the studies that provide evidence on that pairing are displayed within it, often represented graphically as bubbles whose size reflects the volume of available evidence. This structure allows the map to serve two complementary functions: (1) identifying clusters of evidence dense enough to support further synthesis, including full systematic reviews, and (2) highlighting critical gaps where little or no primary research exists, thereby signalling priorities for future study (White et al., 2020).

This EGM is guided by the Campbell Collaboration's standards and procedures for the conduct and reporting of EGM (White et al., 2018, 2020), and follows the published protocol for this map, Advancing

Agent Networks and Merchant Payments for Financial Inclusion in Low-and Middle-Income Countries (LMICs): An Evidence and Gap Map (Sarfo Ameyaw et al., 2026), which sets out in full the objectives, scope, and planned methods described below.

2.2 Framework development and scope

The EGM's scope was developed through a series of steps, beginning with training team members on the EGM development process and evidence mapping.

This training covered the various stages of EGM development and the use of EPPI-Reviewer software, which is essential for producing the EGM.

Next, a team of experts in screening, coding, data analysis, and information retrieval identified the key elements of the study (Population, Intervention, Outcome, Study design) to facilitate study identification. Following this, the EGM's title was completed and registered with the Campbell Collaboration using the Title Registration Form (TRF).

In accordance with the Campbell Collaboration's requirements for EGM production, the team submitted the standard protocol for the EGM after the TRF's acceptance. The team then developed a screening tool (Figure 2) to include studies from LMICs, specifically focusing on relevant interventions and outcomes. Subsequently, academic databases and organizational websites were identified to gather studies based on this screening tool.

The EGM's results are accessible on ICED's organizational website.

2.3 Stakeholder engagement

Stakeholder input played a central role in defining the scope of this EGM and in shaping the intervention and outcome dimensions of the framework. Consultations were held with the Retail Finance Distribution (ReFinD) team at the Institute of Statistical, Social and Economic Research (ISSER), University of Ghana, together with ReFinD grantees and partners, as well as with financial institutions and researchers working in the financial inclusion categories and outcome categories presented in Tables 1 and 2. Because the EGM covers evidence from Sub-Saharan Africa, South Asia, Southeast Asia, and South America, stakeholder engagement extended beyond Ghana to include researchers, policymakers, and practitioners with expertise in digital financial services from across these regions.

Stakeholders were purposively selected based on their expertise in digital financial services, their involvement in agent and merchant network development, and their representation across the regions covered by the map. With support from the stakeholders, we conceptualized, designed, and produced the EGM through an iterative process that incorporated stakeholder feedback at critical stages, including the development of the framework, refinement of the coding scheme, and interpretation of findings. This engagement process enhanced the clarity, usability, and policy relevance of the EGM.

Given that the ReFinD team has produced evidence on digital financial services in LMICs, some studies eligible for inclusion in the map were authored or co-authored by members of the research team. To safeguard against potential bias, all studies, including team-authored ones, were screened independently in the EPPI-Reviewer by two reviewers at both the title/abstract and full-text stages, with at least one reviewer in each pair not involved in the study under assessment. Data extraction and coding followed the same procedure, with any discrepancies resolved through discussion and, where necessary, referred to a third, independent reviewer.

The EGM is intended to serve as a practical resource for researchers, policymakers, practitioners, and funders by highlighting existing evidence, identifying critical gaps, and informing future research priorities, policy formulation, programme design, and investment decisions related to retail finance in LMICs.

2.4 Evidence-based theory of change

The framework illustrates how investments and interventions can enhance supply-side financial inclusion and digital financial services (DFS) (Figure 1). It outlines progression from key inputs to ultimate system-wide impact.

Key inputs include public and donor financing, private sector capital, technical expertise, digital and physical infrastructure, and regulatory and policy support. These inputs enable activities such as:

- Agent Network Development: Recruitment and licensing, rural deployment incentives, e-float financing, cash management, and provision of point-of-sale (POS) devices.
- Market Development: Market incentives, payment-system modernization, digital identification (ID) integration, product innovation, and security systems.
- Regulatory Environment: Regulatory reforms and consumer protection.

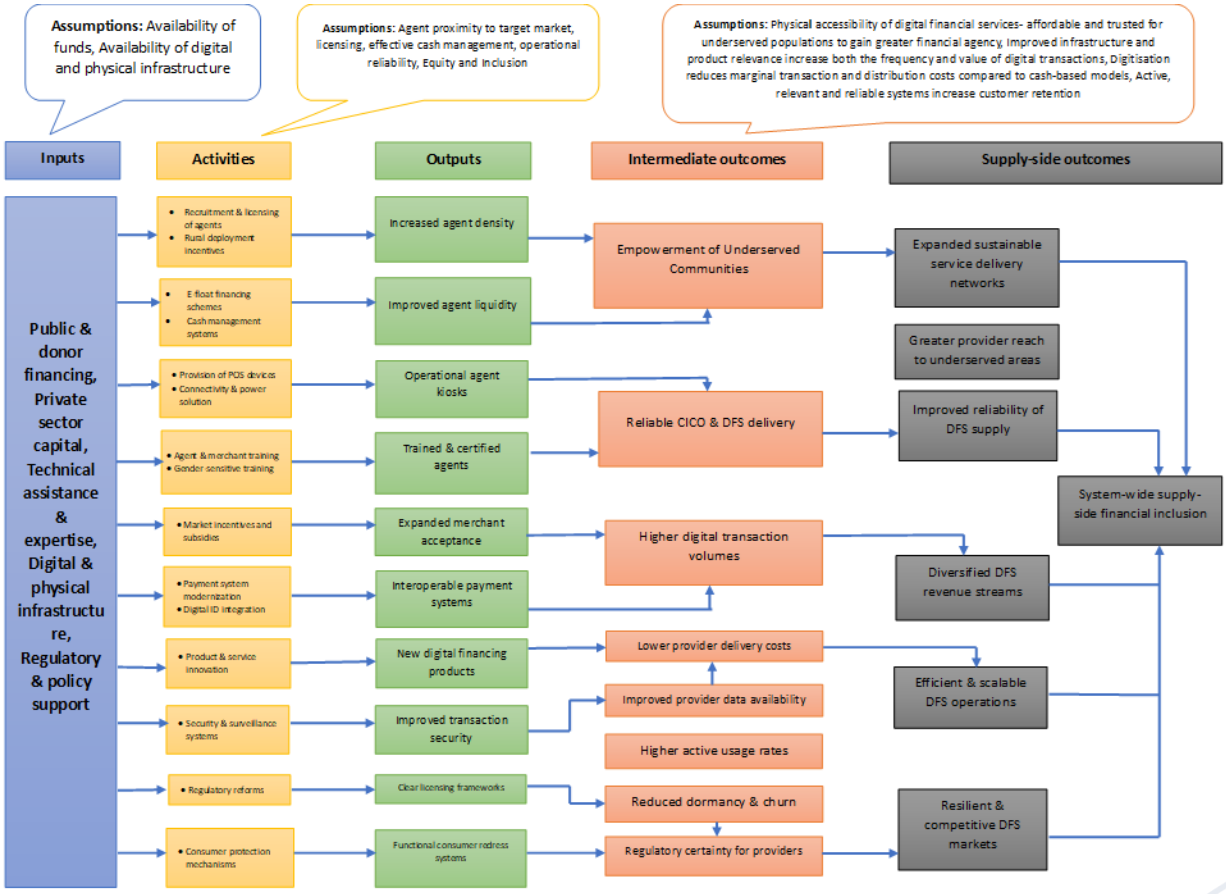


Figure 1: Theory of change

These activities yield outputs such as increased agent density, improved liquidity, trained agents, expanded merchant acceptance, interoperable payment systems, improved transaction security, and functional regulatory and consumer protection systems.

These outputs, in turn, contribute to intermediate outcomes: empowerment of underserved communities; reliable cash-in/cash-out (CICO) and DFS delivery; higher digital transaction volumes and increased active usage; and lower provider costs and improved provider data availability.

Ultimately, these changes are expected to foster expanded and sustainable service networks, greater provider reach, improved reliability, diversified revenue streams, efficient operations, and resilient and competitive DFS markets, thereby contributing to system-wide supply-side financial inclusion.

2.5 Dimensions

The key dimensions of this EGM are interventions, outcomes, evaluation types, and study designs. Interventions and outcomes are presented in a matrix format, with intervention categories as rows and outcome categories as columns. Each cell in the matrix indicates the number of studies for a specific intervention-outcome combination, and the types of study design are represented as segments within these study counts.

The EGM categorizes outcomes into five broad domains: access and reach; usage and uptake; quality, reliability, and trust; sustainability and market development; and security and equity outcomes. The intervention dimension focuses on supply-side mechanisms designed to develop new or strengthen existing digital financial inclusion ecosystem enablers. These include agent and merchant network development, capacity building and institutional strengthening, digital financial infrastructure and innovation, and policy, regulatory, and market enablers. These interventions are selected for their potential to enhance the efficient delivery of financial services, particularly to the last mile in rural and underserved areas within the study regions.

This EGM permits multiple coding of studies that report evidence across more than one intervention, outcome, or study design. The map incorporates a wide range of study designs, including systematic and scoping reviews, thereby capturing the full breadth of evidence relevant to financial inclusion.

2.6 Types of study design

The EGM included published and unpublished studies using the following designs: (i) experimental designs, including randomised controlled trials (RCTs) and other randomised experiments; (ii) non-experimental or quasi-experimental designs, including propensity score matching (PSM), regression discontinuity design (RDD), difference-in-differences (DiD), fixed-effects models and instrumental variables (IV); (iii) qualitative designs, including interviews, focus group discussions, ethnographic studies and case studies; and (iv) scoping reviews, systematic reviews and meta-analyses. Eligible protocols and ongoing studies were also included.

Qualitative research was included in this EGM. Eligible qualitative designs comprised studies employing clearly described methodologies, including exploratory, narrative, deductive, inductive, ethnographic, and grounded theory approaches, provided they addressed the populations, interventions, and outcomes within scope. Systematic reviews and scoping reviews synthesising evidence on agent networks and merchant payments were likewise eligible.

This inclusive approach to study design was adopted because of the limited and fragmented state of the literature on supply-side agent network and merchant payment interventions in LMICs. Restricting the map to experimental and quasi-experimental designs alone risked excluding a substantial share of the relevant evidence base, particularly descriptive, qualitative, and mixed methods study that document implementation and contextual factors not well captured by effectiveness studies. A broad set of eligible designs therefore allowed the map to capture the full distribution of available research across methodologies, consistent with the aim of identifying both clusters of evidence and critical evidence gaps.

Eligible publication types included peer-reviewed journal articles, preprints, technical and policy reports, conference papers, working papers, discussion papers, dissertations, and study protocols, regardless of publication status. Study report status (published or unpublished) was not itself used as an exclusion criterion.

2.7 Types of intervention/problem

To facilitate evidence identification and coding, this EGM categorises interventions into clearly defined supply-side mechanisms. These mechanisms represent the primary ways governments, financial institutions, market actors, and other institutions strengthen the digital financial inclusion ecosystem. The intervention framework consists of four broad categories:

(i) Agent and merchant network development
(ii) Capacity building and institutional strengthening
(iii) Digital financial infrastructure and innovation
(iv) Policy, regulatory, and market enablers

Each category is further divided into subcategories, complete with definitions and examples. This classification offers a systematic framework for mapping evidence across supply-side interventions, highlighting areas where evidence is either abundant or scarce. For a detailed description of the broad intervention categories, see Table 1.

TABLE 1: INTERVENTION CATEGORIES, SUB-CATEGORIES AND DEFINITIONS

Intervention	Subcategory	Definition	Examples
Agent and Merchant Network Development	Network Expansion and Reach	Interventions that aim to grow and strengthen agent and merchant networks, especially in underserved and rural areas, to improve access to financial services.	• Recruitment of new agents/merchants • Licensing of new agents/merchants • Rural deployment incentives • Share of agent networks among providers • Start-up support in low access areas
	Liquidity Support	Measures that enhance the liquidity for agents and merchants to deliver financial services efficiently.	• E-float financing schemes • Cash management systems
	Infrastructure Support	**Interventions that enhance the infrastructure available to agents and merchants to deliver financial services efficiently.**	**Access to point-of-sale (POS) devices, connectivity and power solutions, including power banks, solar kits and signal boosters** **Agent kiosks**

TABLE 1: INTERVENTION CATEGORIES, SUB-CATEGORIES AND DEFINITIONS

Intervention	Subcategory	Definition	Examples
Capacity Building and Institutional Strengthening	Training and Skills Development	Initiatives that enhance the knowledge, skills, and competencies of agents, merchants, and financial service providers to improve service quality and sustainability.	• Agent certification programs • Customer service and compliance training • Digital and financial literacy for merchants • Gender-sensitive training modules
	Institutional and Regulatory Capacity Support	Programs that build the technical and managerial capacity of financial service providers, regulators, and policymakers to sustain inclusive digital ecosystems.	• Central bank digital finance training • Support for agent/merchant supervision • Technical assistance to fintech associations, agent associations, bankers' associations
Digital Financial Infrastructure and Innovation	Technology and System Modernization	Investments in digital and payment infrastructure that enhance transaction efficiency, reliability, and interoperability.	• Real-time payment systems • National payment switches • Digital identification (ID) integration for onboarding • Application programming interface (API) interoperability between banks and fintech firms
	Product and Service Innovation	Development of new or improved financial products and delivery mechanisms to support inclusion through agents and merchants.	• **Quick response (QR) code and contactless payments, such as tapping a contactless-enabled card, phone or wearable device** • **Mobile money application innovations** • **Bundled savings or insurance products for merchants**
	Security and Surveillance	Innovations that aim to improve security at agents' or merchants' business locations.	Installation of closed-circuit television (CCTV) systems Cash-counting machines
Policy, Regulatory, and	Regulatory Reforms and Policy Frameworks	Reforms that enable innovation, reduce barriers to entry, and	• **Simplified know-your-customer (KYC) requirements for low-value accounts**

TABLE 1: INTERVENTION CATEGORIES, SUB-CATEGORIES AND DEFINITIONS

Intervention	Subcategory	Definition	Examples
Market Enablers		promote safe, competitive, and inclusive agent and merchant operations.	• **Licensing frameworks for non-bank agents** • **Gender-inclusive digital finance policies**
	Consumer Protection and Risk Management	Measures to safeguard customers and agents from fraud, unfair practices, and operational risks	• Digital fraud monitoring • Data protection frameworks • Consumer complaint mechanisms • Tariff posting
	Market Development and Incentives	Initiatives that create enabling environments and partnerships for scaling digital payments and agent networks	• Fintech sandboxes • Merchant digitization subsidies • Transaction fee reductions or incentives

2.8 Types of population (as applicable)

The population of interest comprised supply-side actors and institutional entities directly involved in the development, delivery, management, regulation, and support of agent networks and merchant payment systems in LMICs across Sub-Saharan Africa, South Asia, Southeast Asia, and South America. Eligible populations included retail and banking agents, merchants, financial service providers, regulatory institutions, aggregators, and super-agents. Retail and banking agents were defined as intermediaries that delivered financial services on behalf of banks, mobile network operators, fintech companies, and other authorized financial service providers, including mobile money agents, banking correspondents, and cash-in/cash-out operators. Merchants comprised individuals and businesses that accepted and processed digital or electronic payments for goods and services, including small and medium-sized enterprises, retail businesses, and other commercial establishments participating in digital payment ecosystems.

Retail and banking agents included mobile money agents, banking correspondents, and cash-in/cash-out operators, while merchants comprised individuals and businesses accepting digital payments. Financial service providers and regulators included banks, microfinance institutions, fintech firms, central banks, and relevant associations, whereas aggregators and super-agents supported agent networks through liquidity, training, and operational assistance. Studies conducted outside the four geographical regions defined within the scope of the EGM were similarly excluded.

Equity considerations were incorporated into the population framework by capturing variations in gender, enterprise size, and geographical location where these characteristics were reported. Attention was given to evidence concerning female agents and merchants, microenterprises, and agents and merchants operating in rural and underserved areas. These dimensions enabled the EGM to assess the extent to which the available evidence reflected groups and market contexts that may have experienced distinctive structural, operational, or institutional constraints within digital financial service delivery systems.

2.9 Types of outcome measures (as applicable)

To guide evidence identification and coding, outcomes in this EGM are organised into five broad domains reflecting the extent, quality, sustainability, security, and equity of digital financial inclusion. These domains capture changes in (i) access and reach; (ii) usage and uptake; (iii) quality, reliability, and trust; (iv) sustainability and market development; and (v) security and equity outcomes. These outcomes served as an eligibility criterion for inclusion, ensuring that included studies assessed how supply-side interventions contribute to improvements in the availability, accessibility, use, quality, security, sustainability, and equitable delivery of digital financial services, particularly among rural and underserved populations.

TABLE 2: OUTCOME DOMAIN, SUB-CATEGORIES, AND EXAMPLES

Outcome Category	Sub-category	Definition	Examples / Indicators
	Service point availability and density	Availability of agents and merchants relative to population and geography.	• **Number of agents or merchants per 1,000 adults** • **Number of agents in rural versus urban areas** • **Adoption and use of merchant payments**
Access and Reach	Geographic accessibility	Physical ease of reaching financial service points.	• Distance to nearest agent • Travel time • Waiting time • Travel risks
	Population coverage and inclusion	Extent to which different population groups can access services.	• Share within 5 km of agent • Access among women, youth, persons with disabilities
	Account access and onboarding	Uptake of entry-level financial services through agents/merchants.	• Number of new accounts; agent-facilitated registrations
Usage and Uptake	Transaction volume and value	Total quantity and value of transactions conducted.	• Mobile money sales/volumes • Value of transactions • Agent revenues
	User activity and transaction frequency	Regularity of service usage among customers.	• Active users per month • Frequency of cash-in/cash-out • Number of digital merchant payments processed • Repeat usage rates

TABLE 2: OUTCOME DOMAIN, SUB-CATEGORIES, AND EXAMPLES

Outcome Category	Sub-category	Definition	Examples / Indicators
	Product adoption and diversity	Breadth of financial services used by customers.	• Uptake of savings, credit, insurance • Multi-product usage
	Merchant payment adoption	Extent to which merchants accept and use digital payments.	• Number of merchants accepting digital payments • Growth in merchant transactions • Share of customers using multiple services • Number of innovations • Improved financial service usage by merchants
Quality, Reliability, and Trust	System performance and reliability	Operational stability and efficiency of service delivery systems.	• **Transaction success rates** • **System downtime or failure frequency** • **Average transaction processing time** • **Efficiency of adoption** • **Network connectivity and system response**
	Service efficiency	Speed and cost-effectiveness of transactions and services.	• Transaction time • Service costs
	Customer experience and satisfaction	User perceptions of service quality and usability.	• Customer satisfaction scores • Number of complaints received and resolved • Transparency of fees and pricing
	Trust and perceived safety	User confidence in the safety and fairness of services.	• Perceived fraud risk • Transparency of fees • Trust in agents
Sustainability and market development	Agent and merchant viability	Financial sustainability and retention of agents and merchants.	• Agent profitability (revenues minus costs) • Agent costs • Average commission earned per transaction • Retention rates of active agents • Access to working capital and liquidity • Expenditure

TABLE 2: OUTCOME DOMAIN, SUB-CATEGORIES, AND EXAMPLES

Outcome Category	Sub-category	Definition	Examples / Indicators
			• Return on assets • Return on equity • Number of permanent branches of mobile money business • Value of transactions • Number of clients
	Market expansion and investment	Growth and deepening of the digital financial ecosystem.	• Level of private sector investment in agent/merchant networks • Growth of partnerships among banks, fintechs, and mobile network operators (MNOs) • Number of permanent branches
	Ecosystem development and integration	Degree of system-wide coordination and interoperability.	• Interoperable platforms • Bank-fintech partnerships • Network integration
	Policy and regulatory outcomes	Effects of policies on enabling inclusive financial systems.	• Adoption of inclusive policies • Regulatory improvements
Security and equity outcomes	Transaction security and fraud	Incidence and management of fraud and security risks.	• **Reported fraud cases** • **Theft incidents** • **Security breaches**
	Risk exposure and mitigation	Vulnerability of users and agents to financial and operational risks.	• Losses due to fraud • Protection mechanisms
	Gender and social inclusion outcomes	Differences in outcomes across gender and social groups.	• Gender gaps in access/usage • Female agent participation • Gender composition of firm ownership
	Distributional equity across groups	Variation in benefits across population subgroups.	• Disparities by income, location

2.10 Other eligibility criteria

Study setting and language

The EGM established additional eligibility criteria primarily focused on geographical setting, language, and implementation context. This restricted inclusion to studies conducted exclusively in Sub-Saharan Africa (SSA), South Asia (SA), Southeast Asia (SEA), and South America. Eligible settings encompassed all specified interventions and outcomes aimed at retail and banking agents, merchants, financial service providers, regulatory institutions, aggregators, and super-agents. Only studies written in English were included.

Timeframe

The EGM included studies published or reported from the year 2000 to 2025.

Exclusion criteria

Studies unrelated to financial inclusion, as defined by the EGM's outcomes and target populations, were excluded. Studies that did not meet the other inclusion criteria were also excluded.

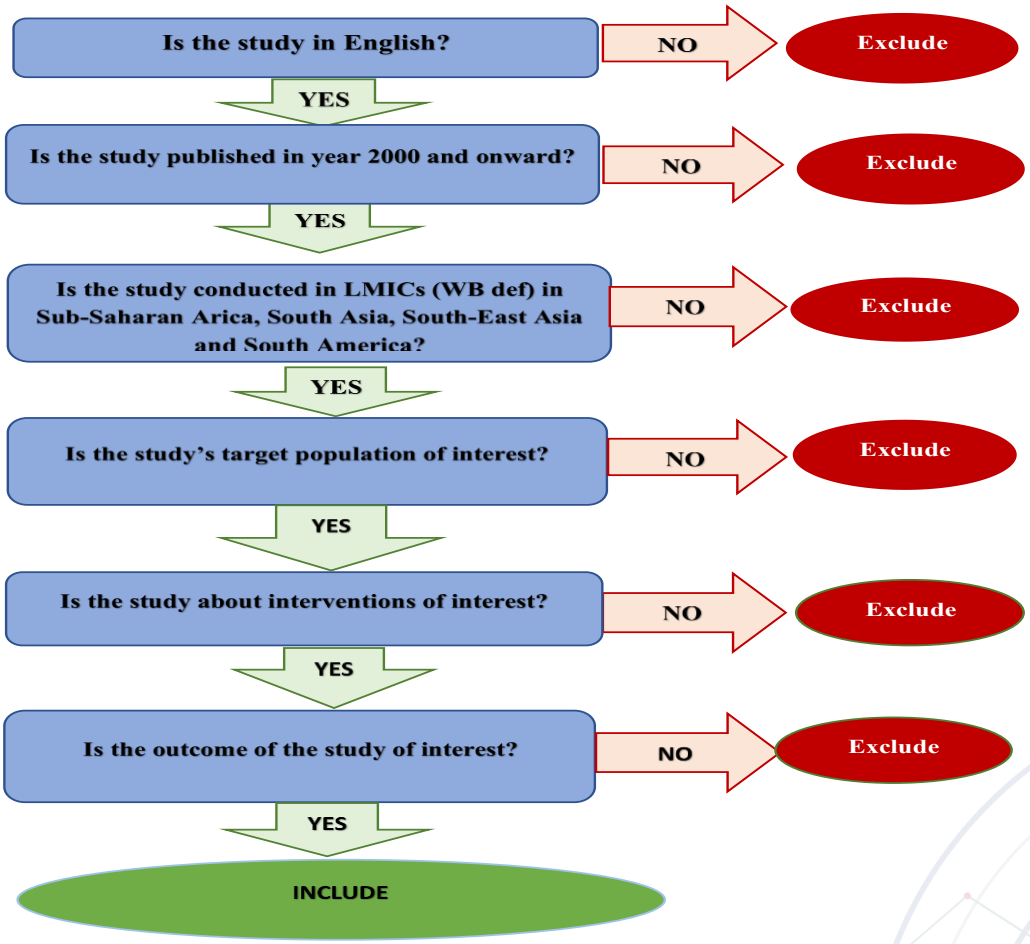


Figure 2: EGM screening tool

2.11 Search methods and sources

Search strategy and Information Sources

The searches for the EGM were conducted systematically in accordance with established protocols for comprehensive and transparent evidence identification. The search strategy was designed to identify both academic and grey literature on interventions aimed at strengthening agent networks and merchant payment systems to advance financial inclusion in Low- and Middle-Income Countries (LMICs). Particular attention was given to evidence from Sub-Saharan Africa (SSA), South Asia (SA), Southeast Asia (SEA), and South America.

A broad range of bibliographic databases and grey literature sources were searched to maximise the identification of relevant evidence. In addition to database searches, backward citation tracking was undertaken for included studies and relevant systematic reviews. Where appropriate, key authors and institutions working in the areas of digital finance and financial inclusion were also considered as additional sources of relevant evidence.

Search Strategy

The search strategy was structured around the Population–Intervention–Outcome framework. Search strings combined terms relating to agent networks and merchant payment interventions with terms associated with financial inclusion and key outcome domains. These outcomes included access to financial services, usage, adoption, transaction activity, and sustainability. See Appendix 1 for full list of search terms used.

Study design terms were deliberately excluded from the search strings to minimise the risk of unintentionally excluding relevant evidence. This approach was particularly important for capturing descriptive, qualitative, mixed-methods, and other forms of evidence that may not use standard study-design terminology in their titles or abstracts.

Where database functionality permitted, geographic filters relating to LMICs and the priority regions of SSA, SA, SEA, and South America were applied to improve the relevance of retrieved records while maintaining sufficient sensitivity.

Search limits and restrictions

The searches were restricted to studies published from 2000 onwards, reflecting the period during which agent banking, mobile money, and digital payment systems expanded substantially across LMICs. Only publications available in English were considered. The geographic scope covered LMICs, with regional filters applied where database functionality allowed the identification of evidence from the four priority regions.

Eligible publication types included peer-reviewed journal articles, working papers, technical reports, policy reports, conference papers, dissertations, protocols, and preprints.

Data and information sources

Academic databases

Academic database searches covered disciplines including economics, development studies, finance, information systems, and public policy. The databases searched included:

- Web of Science
- Scopus
- ScienceDirect
- JSTOR
- IDEAS/RePEc
- Taylor & Francis
- Wiley Online Library
- African Journals Online (AJOL)

Collectively, these databases provided broad coverage of peer-reviewed literature relevant to agent networks, merchant payment systems, and financial inclusion in LMIC contexts.

To identify existing evidence syntheses and systematic reviews relevant to the scope of the EGM, searches were also conducted in key systematic review and research registries. These included the Campbell Collaboration Library, the 3ie Systematic Review Database and the Cochrane Database of Systematic Reviews.

Grey literature sources

Extensive searches of grey literature sources were also undertaken to capture policy-oriented, technical, and practice-based evidence that may not be indexed in conventional academic databases. These sources included:

- World Bank Group's Open Knowledge Repository
- Abdul Latif Jameel Poverty Action Lab (J-PAL)
- Social Science Research Network (SSRN)
- IDEAS/RePEc,
- Asian Development Bank
- African Development Bank

Use of Boolean operators and truncation

Boolean operators were used to combine the different conceptual components of the search strategy and to structure database-specific search strings. Truncation and wildcard symbols were applied where appropriate to capture variations in word endings, plural forms, spelling, and related terminology.

These search techniques were used to achieve an appropriate balance between sensitivity and precision, enabling the identification of a broad range of potentially relevant evidence while limiting the retrieval of records that were clearly outside the scope of the EGM.

Backward citation searching

Backward citation searching was conducted by reviewing the reference lists of all studies included in the EGM, as well as relevant systematic reviews, evidence syntheses, and other key publications identified during the screening process. The reference lists were examined to identify potentially eligible studies that had not been captured through the electronic database and grey literature searches.

Attention was given to references cited in key studies and reviews that were directly relevant to agent networks, merchant payment systems, digital financial services, and financial inclusion. Records identified through backward citation searching were assessed against the EGM's eligibility criteria and, where potentially relevant, were added to the screening process.

2.12 Analysis and presentation

2.12.1 Report structure

The report is organised into several sections presenting the rationale, methodology, findings, and implications of the Evidence and Gap Map (EGM). The Background section provides the context and rationale for the EGM, highlighting the importance of agent networks and merchant payment systems in advancing financial inclusion in Low- and Middle-Income Countries (LMICs). The Objectives section outlines the specific questions and aims guiding the EGM.

The Methods section describes the methodological approach used to develop the EGM, including the conceptual framework, intervention and outcome classifications, eligibility and screening processes, and the dimensions used to characterise the evidence. It also presents the screening tool and provides definitions of the intervention categories, subcategories, outcome domains, and other coding dimensions used in the mapping process.

The Results section presents the evidence identified and mapped through the review process. It begins with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flowchart and a summary of excluded studies, followed by an overview of the EGM and descriptive analyses of the evidence base. These analyses examine publication trends, publication types, study designs, geographical distribution, intervention types and categories, and outcome domains. The section also presents the distribution and intersection of interventions and outcomes, including their relationship with study designs and geographic regions. Where applicable, the quality assessment of included systematic reviews is also reported.

The Discussion section interprets the findings in relation to the objectives of the EGM and considers the patterns, concentrations, and gaps identified across interventions, outcomes, study designs, and geographical regions. The section also highlights important evidence gaps that may inform future research, policy, and programming.

A separate section on Potential Biases in the Mapping Process discusses methodological limitations and potential sources of bias that may have influenced the identification, inclusion, coding, and interpretation of evidence.

The Authors' conclusions section summarises the principal findings and their implications for research, policy and practice. The report also includes author contributions, funding and data availability statements, declarations of competing interests, plans for updating the EGM, differences from the protocol, references and appendices. Acknowledgements appear in the front matter.

Table 3: Report structure

About ICED

About the report

Acknowledgements

Project Summary

Abbreviations and acronyms

1. Background

2. Methods

Figure 1: Theory of change

Table 1: Intervention categories, sub-categories and definitions

Table 2: Outcome domain, sub-categories, and examples

Figure 2: EGM screening tool

Table 3: Report structure

Table 4: Filter dimensions and descriptions

3. Results

Figure 3: PRISMA flowchart

Figure 4: Snapshot of the EGM

Table 5: Inclusion status and reasons for exclusion at the full-text stage

Table 6: Examples of excluded studies

Figure 5: Publication trends by intervention category

Figure 6: Publication trends by outcome domain

Figure 7: Publication types of included studies

Figure 8: Study designs of included studies

Figure 9: Geographical distribution of included studies by region

Figure 10: Target populations of included studies

Figure 11: Geographical heat map of included studies

Figure 12: Intervention categories of included studies

Table 7: Intervention categories and subcategories of included studies

Figure 13: Frequency of types of outcomes of included studies (n=272).

Table 8: Frequency of categories and sub-categories of outcomes of included studies.

Table 9: Study counts by intervention category and outcome domain

Table 10: Intervention categories and outcome domains by study design

Table 11: Intervention categories and outcome domains by geographical region

Figure 14: Trends in commissioned and non-commissioned studies

4. Discussion

5. Authors' conclusions

Contributions of authors

Funding

Data availability statement

Declaration of conflicting interests

Plans for updating the EGM

Differences Between Protocol and Full Report

References

Appendices

Appendix 1 Search strategies

Appendix 2 Coding form

2.12.2 Filters for presentation

The EGM incorporated additional filter dimensions to facilitate the exploration and presentation of evidence according to characteristics of interest to stakeholders. These filters enable users to refine the evidence map and identify studies based on geographic location, study design, publication year, publication type, and study status.

The region and country filters allow evidence to be examined according to the geographic location of the studies, covering LMICs within the specified regions. The study design filter distinguishes between experimental, non-experimental, qualitative, and review studies. The year of publication filter covers studies published between 2000 to 2025, based on the formal publication date rather than the date of online indexing.

The type of publication filter captures the range of eligible evidence sources, including peer-reviewed articles, preprints, reports, conference papers, working and discussion papers, dissertations, protocols, and book chapters. Finally, the study status filter distinguishes between completed and ongoing studies.

These dimensions were incorporated into the EGM to enable users to interactively explore the evidence and identify concentrations and gaps across different geographical, methodological, temporal, publication, and study-status characteristics. In the online interactive map, the dimensions can be selected as filters, while corresponding 2×2 representations can be used in the hard-copy version of the EGM where appropriate.

Table 4: Filter dimensions and descriptions

Filter dimension	DESCRIPTION
Region	Study regions include World Bank categorised LMICs, specifically, SSA, South Asia, Southeast Asia, and South America
Country	**The 67 countries that make up the study regions are included in the EGM.**
Study design	Various research design types were used as filters in the studies. Four (4) main types of study designs were recognized by the EGM: experimental, non-experimental (including quasi-experimental and regression-based studies), qualitative, and reviews (both systematic and scoping).
Year of publication	**Instead of the date an article was indexed online, the EGM indicates the date it was published in a journal. The publication years covered by the current EGM are 2000–2025.**
Type of publication	Eligible publication types included journal articles, preprints, technical and policy reports, conference papers, working and discussion papers, dissertations, protocols, and books or book chapters.
Status of studies	**Studies were classified as completed or as protocols/ongoing studies.**

2.12.3 Dependency

The primary unit of analysis for the EGM was the study, defined as an analysis based on a unique sample, including analyses conducted at multiple time points using the same sample. Where a single study was reported across multiple publications, the most recent and comprehensive publication was selected as the source for coding.

Studies that examined multiple interventions, outcomes, or study designs were coded under all applicable categories. However, each study was counted only once in the overall EGM to avoid double counting. Where a study included both eligible and ineligible interventions or outcomes, only the components that met the EGM's eligibility criteria were coded and mapped.

Systematic reviews were treated as eligible evidence sources where they met the inclusion criteria, even when the primary studies included in those reviews were independently represented in the EGM. Where multiple systematic reviews included or referenced the same primary study, each review was retained and mapped separately, if it met the eligibility criteria. This approach ensured that relevant evidence syntheses were captured while maintaining appropriate distinction between primary studies and reviews.

2.13 Data collection and analysis

2.13.1 Screening and study selection

Duplicate records were identified and removed prior to the commencement of the screening process. The remaining records were subsequently assessed against the predefined eligibility criteria developed for the EGM. Eligibility was determined based on the relevance of each study to the review question and its alignment with the specified inclusion and exclusion criteria.

Screening was conducted for both published and unpublished studies in two sequential stages: (i) title and abstract screening and (ii) full-text screening. During the title and abstract screening stage, records were

assessed using a predetermined screening tool based on the eligibility criteria, as presented in Figure 2. Studies that met the eligibility criteria, as well as those for which eligibility could not be determined from the title and abstract alone, progressed to full-text screening.

During the full-text screening stage, the complete texts of potentially eligible studies were assessed against the same predefined eligibility criteria. Two reviewers independently screened the records at both stages to minimise the risk of selection bias and promote consistency in the application of the eligibility criteria.

Disagreements between reviewers regarding the inclusion or exclusion of studies were initially discussed and resolved through consensus. Where consensus could not be reached, a third reviewer independently assessed the study and made the final determination regarding its eligibility for inclusion in the EGM.

Inter-rater reliability and reviewer training

Prior to the commencement of the formal screening process, all reviewers underwent training to ensure a consistent understanding and application of the predefined eligibility criteria and screening procedures. The training familiarised reviewers with the screening tool, inclusion and exclusion criteria, and procedures for addressing potentially ambiguous or unclear studies.

A pilot screening exercise was conducted using a sample of records to assess consistency in screening decisions and identify areas where the eligibility criteria or screening questions required further clarification. Reviewers independently screened the same sample of records, after which discrepancies were discussed collectively to establish a shared interpretation and consistent application of the eligibility criteria.

Inter-rater reliability was assessed during the pilot screening phase to determine the level of agreement between reviewers. Where substantial disagreement was identified, the screening criteria and guidance were reviewed and refined, and additional training or calibration was undertaken as necessary before the full screening process commenced. The finalised screening approach was subsequently applied consistently throughout both the title and abstract and full-text screening stages. At least 80% inter-rater reliability was reported for screening and coding.

2.13.2 Data extraction and management

Coding

A standardized data extraction and coding form was developed and piloted to guide the systematic extraction of key characteristics from all studies included in the Evidence and Gap Map (EGM). The coding framework captured relevant study characteristics, including region, country, language, population, study status, intervention, outcomes, study design, and evaluation type. The full coding framework is provided in Appendix 2.

EPPI-Reviewer was used to support data management, coding, and analysis throughout the review. Prior to commencing full data extraction, all reviewers received training on the coding framework and standardized procedures for applying the coding criteria. The coding form was piloted on a sample of included studies to identify ambiguities, inconsistencies, or gaps in the coding categories and to ensure that the framework can be applied consistently.

As a quality-control measure, at least two members of the EGM team independently coded each included study using the predefined coding framework. Any discrepancies between reviewers were discussed and

resolved through consensus. Where agreement could not be reached, a third reviewer independently assessed the study and adjudicated the disagreement.

Where the volume of included studies made complete duplicate coding impractical, a randomly selected sample of studies was independently coded or re-coded by a second reviewer. This process was used to assess the consistency and reliability of the coding process. Any recurring discrepancies identified through these checks were reviewed by the EGM team, and the coding guidance was clarified where necessary before full coding proceeded.

Data cleaning

A structured data-cleaning process was undertaken to ensure the accuracy, completeness, and internal consistency of all records included in the EGM. The cleaning process focused on identifying and correcting discrepancies in the coded data and ensuring that all records were consistently aligned with the established eligibility criteria and coding framework.

The data were systematically reviewed for missing, inconsistent, or incorrectly coded information. Frequency and cross-tabulation checks were conducted for key variables and filters to verify that recorded values and totals were internally consistent and corresponded with the overall number of included studies. Attention was given to identifying mismatched totals, duplicate records, incorrect or inconsistent category assignments, and missing values.

Any discrepancies identified during the cleaning process were reviewed against the original study records and corrected where necessary. Additional quality checks were undertaken before the final analysis and development of the EGM to ensure that the dataset accurately reflected the included evidence base.

Data analysis

The data analysis was undertaken in three main stages: (i) treatment and analysis of included studies, including systematic reviews; (ii) descriptive analysis and synthesis of the evidence base; and (iii) development and visualisation of the EGM.

Treatment of studies and systematic reviews

Systematic reviews that reported on multiple interventions and outcomes were treated as a single study in the overall evidence count. However, each relevant intervention and outcome was coded separately to ensure that the full scope of evidence represented within the review was captured in the EGM.

Where a study included interventions that fell both within and outside the scope of the EGM, only the interventions and evidence that met the predefined eligibility criteria were coded and included in the map. Where multiple publications or versions of the same study were identified, these were assessed to determine whether they represented the same underlying evidence. Where appropriate, the most recent or complete publication was used for coding to avoid double-counting within the evidence base (Hussein et al., 2022).

Analysis of included studies

Analysis of the included studies was conducted using EPPI-Reviewer. The analysis primarily involved descriptive statistics, including frequencies and percentages, to summarise the characteristics of the evidence base.

The findings were presented using tables, graphs, and cross-tabulations to illustrate the distribution of evidence across key variables, including interventions, outcomes, study designs, study status, countries, and regions. Cross-tabulations were also used to explore relationships and patterns across key dimensions of the evidence base. This analysis enabled the identification of areas where evidence was concentrated, areas with limited evidence, and potential evidence gaps.

The findings were subsequently synthesised to provide an overall picture of the available evidence and identify patterns in the distribution of interventions, outcomes, populations, geographic coverage, and study designs.

Development of the EGM

The EGM was developed using EPPI-Reviewer and EPPI-Mapper. The coded data were used to generate the map and visually represent the distribution of available evidence across the key dimensions of the EGM framework.

The frequency of studies within each intervention and outcome category was represented visually using bubbles or mosaics of varying sizes. The size of each bubble, or the number of elements within a mosaic, corresponded to the number of studies associated with the relevant intervention and/or outcome. This enabled users to identify areas with a concentration of evidence as well as areas where evidence was limited or absent.

Presentation of the EGM

The EGM was presented as an interactive two-dimensional matrix, with interventions and outcomes forming the primary dimensions of the map. The structure and framework of the map were developed through consultation and collaborative discussions with relevant stakeholders, including the Campbell Collaboration and ISSER, to ensure that the map reflected the information needs of its intended users.

2.14 Tools for assessing risk of bias/study quality of included reviews

Systematic reviews included in the EGM were critically appraised using A Measurement Tool to Assess Systematic Reviews 2 (AMSTAR 2), which assesses the methodological quality of systematic reviews across 16 domains. Reviews were rated as having high, moderate, low, or critically low confidence based on the AMSTAR 2 criteria.

AMSTAR 2 does not assess the certainty or relevance of the evidence. Given the scope and timeframe of the EGM, the quality or risk of bias of individual primary studies was not formally assessed. Instead, study designs were coded and reported and incorporated as filters within the EGM, consistent with White et al. (2020).

2.15 Methods for mapping

EPPI-Reviewer 6 was used for screening and coding of the included studies, while EPPI-Mapper was used to develop the EGM. Other software packages commonly used for evidence mapping include Covidence, DistillerSR, and the Joanna Briggs Institute System for the Unified Management, Assessment and Review of Information (JBI SUMARI) (Schmidt et al., 2025).

EPPI-Reviewer 6 supported the screening process by allowing references to be allocated to reviewers and screened by one or more reviewers at the title and abstract stage. It also facilitated the management and

retrieval of full-text papers and the synthesis of coded data through frequencies and cross-tabulations (Thomas & Brunton, 2007). In addition, the software supports data sharing and reuse within the systematic review community (Park & Thomas, 2018). However, its adoption requires consideration of users' needs and an informed evaluation of its suitability for the review process (Khalil et al., 2025).

3. Results

3.1 Results of the search

A total of 36,152 records were identified from academic databases, grey literature and supplementary searches, including OpenAlex searches through EPPI-Reviewer. After 8,453 duplicates were removed, 27,699 records underwent title and abstract screening, and 977 records were selected for full-text retrieval or assessment. Overall, 272 studies met the eligibility criteria and were coded for inclusion in the evidence map (see Figures 3 and 4).

Although JSTOR and Taylor & Francis returned 8,087 and 8,060 records respectively, screening was capped at the first 500 relevance-ranked records for each platform. Both platforms rank search results by relevance rather than date, and a stopping rule was applied based on the yield of eligible records in the final 100 records screened: zero for JSTOR and one for Taylor & Francis, indicating that the marginal return from continued screening was negligible. A total of 15,147 records across the two platforms were therefore retrieved but not screened. This decision and its implications for the comprehensiveness of the evidence base are acknowledged as a limitation in Section 4.4.

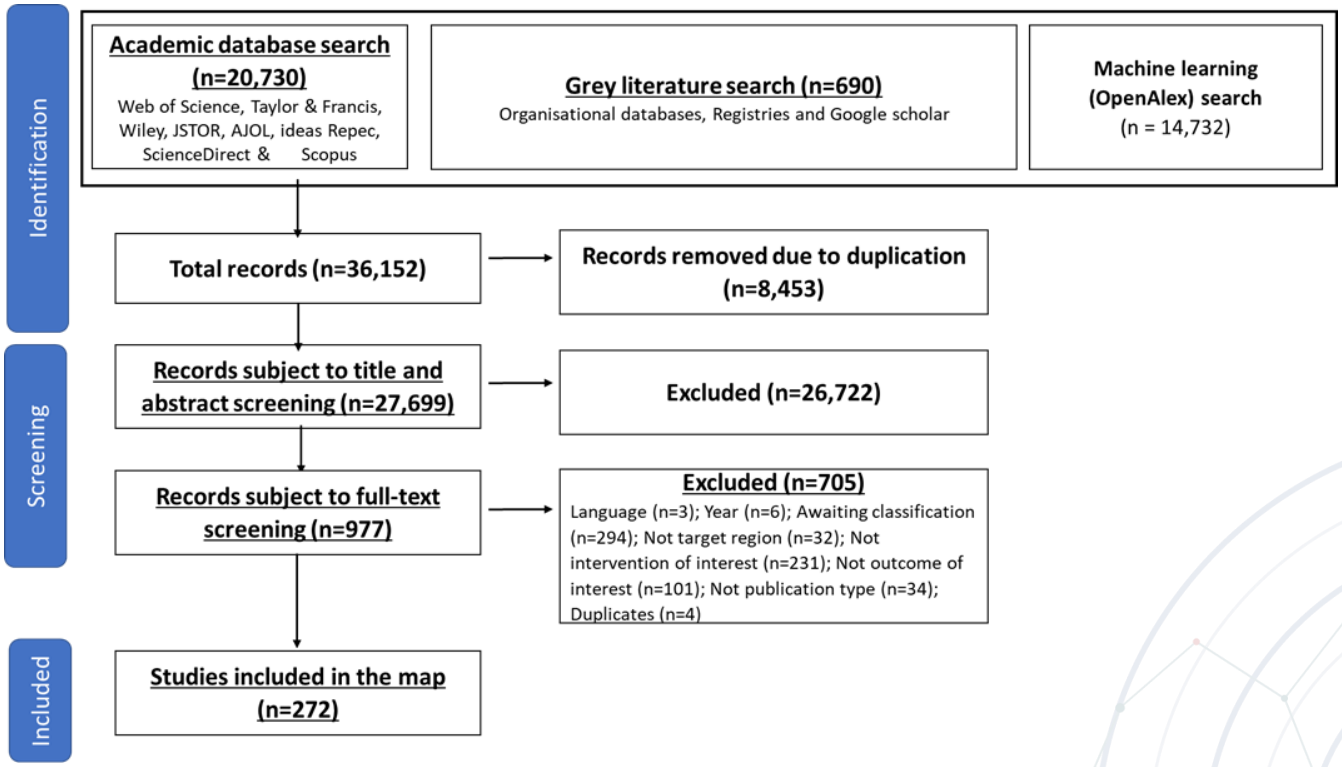
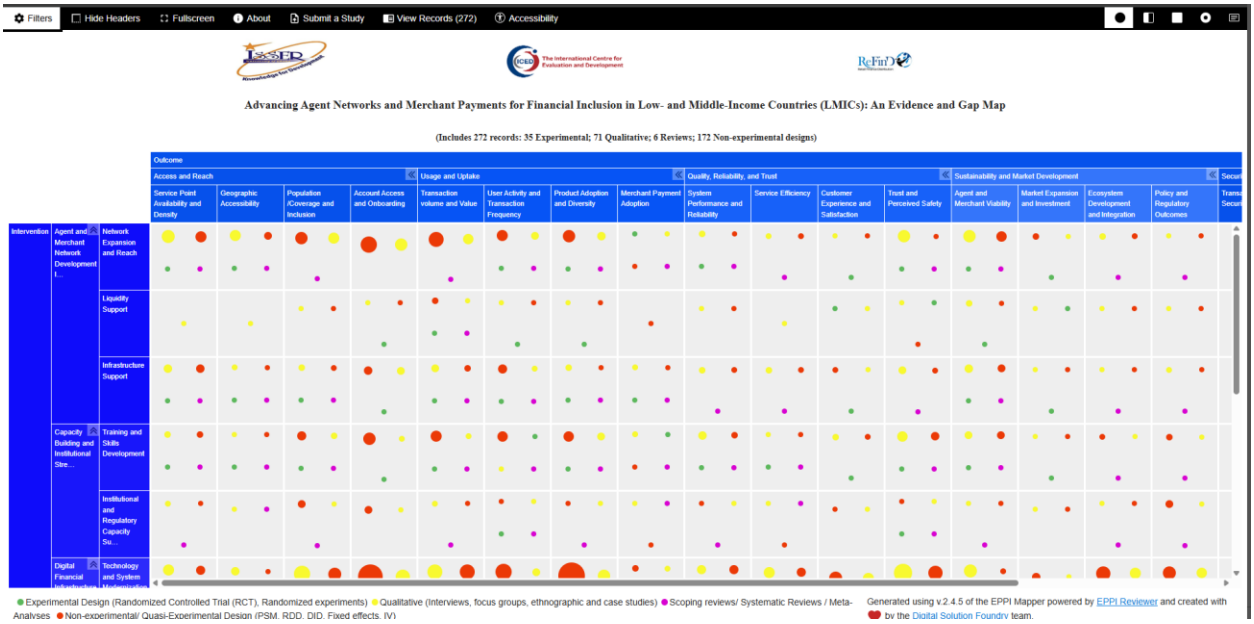


Figure 3: PRISMA flowchart



The EGM can be found at https://products.iced-eval.org/reFiDiI.html

Figure 4: Snapshot of the EGM

3.2 Excluded studies

3.2.1 Reasons for excluding studies

Table 5 summarizes the reasons for excluding studies at the full-text screening stage. Out of 977 records assessed at full-text screening, 272 studies (27.8%) met the inclusion criteria and were included in the EGM, while the remaining studies were excluded for clearly documented reasons.

On full text screening, (231 studies; 23.6%) were excluded due to the intervention not being of interest and the outcome not being of interest (101 studies; 10.3%). Additional exclusions were based on publication type (34 studies; 3.5%) and country ineligibility, i.e., studies not conducted in targeted regions (32 studies; 3.3%). A smaller number of studies were excluded due to publication year (6 studies; 0.6%), duplicate records identified at the full-text stage (4 studies; 0.4%), and language restrictions (3 studies; 0.3%). Overall, these exclusions reflect the application of the predefined eligibility criteria and ensure that only studies aligned with the EGM's population, intervention, outcome, and study design scope were included. The remaining 294 studies were not assessed since we couldn't gain access to the full text and are therefore waiting for classification.

Table 5: Inclusion status and reasons for exclusion at the full-text stage

STUDIES	FREQUENCY (N)	SHARE (%)
Included	272	27.8
Exclusion reasons and unresolved records		
Language	3	0.3

STUDIES	FREQUENCY (N)	SHARE (%)
Year	6	0.6
Awaiting classification	294	30.1
Not in SSA, South Asia, Southeast Asia, or South America	32	3.3
Not intervention of interest	231	23.6
Not outcome of interest	101	10.3
Not publication type	34	3.5
Duplicates	4	0.4
Total	977	100.0

3.2.2 Examples of excluded studies

At the time of analysis, some studies that were deemed potentially eligible at the screening stages were not incorporated into the map. These studies might have met some but not all the inclusion criteria. For example, study by Abdinova (2025) was deemed potentially eligible but had to be excluded as the study does not focus on low and middle-income countries. Again, study by Aryeetey (1997) was excluded based on year though the interventions and outcomes were of interest to our study. Table 6 provides an overview of excluded studies that were identified as potentially eligible but not incorporated into the map.

Table 6: Examples of excluded studies

AUTHOR	TITLE	Reason for exclusion
Arakelyan (2024)	Financial inclusion and financial access through fintech innovations: bridging the gap in the digital age	Language
Aryeetey (1997)	Financial market fragmentation and reforms in Sub-Saharan Africa	Year
Abdinova (2025)	Analysis of fintech and bank profitability in Kazakhstan	Population outside scope
Abou-Shouk (2016)	Using competing models to evaluate the role of environmental pressures in ecommerce adoption by small and medium sized travel agents in a developing country	Not intervention of interest
Abokyi (2024)	Financial inclusion and household consumption behaviour in Ghana	Not outcome of interest
Choudhary (2024)	Impact of fintech and financial inclusion on sustainable development goals (SDGs): evidence from cross country analysis	Duplicates

3.3 Synthesis of included studies

3.3.1 Characteristics of the EGM

Publication trends across the four intervention categories show negligible activity before 2010, followed by a gradual increase from 2011 onward and a marked acceleration from 2019 to 2025. Among the intervention types, Digital Financial Infrastructure and Innovation shows the most pronounced growth, rising sharply after 2020 to become the dominant intervention category by 2023–2025, peaking near 27 publications in 2025, indicating a clear and growing evidence cluster around this theme. Agent and Merchant Network Development; Capacity Building and Institutional Strengthening; and Policy, Regulatory, and Market Enablers show more modest, fluctuating growth over the same period, with all three converging in the 10–12 publication range by 2025. This pattern suggests that while research attention across all intervention areas has grown, evidence generation has increasingly concentrated on digital infrastructure and innovation relative to the other three intervention types.

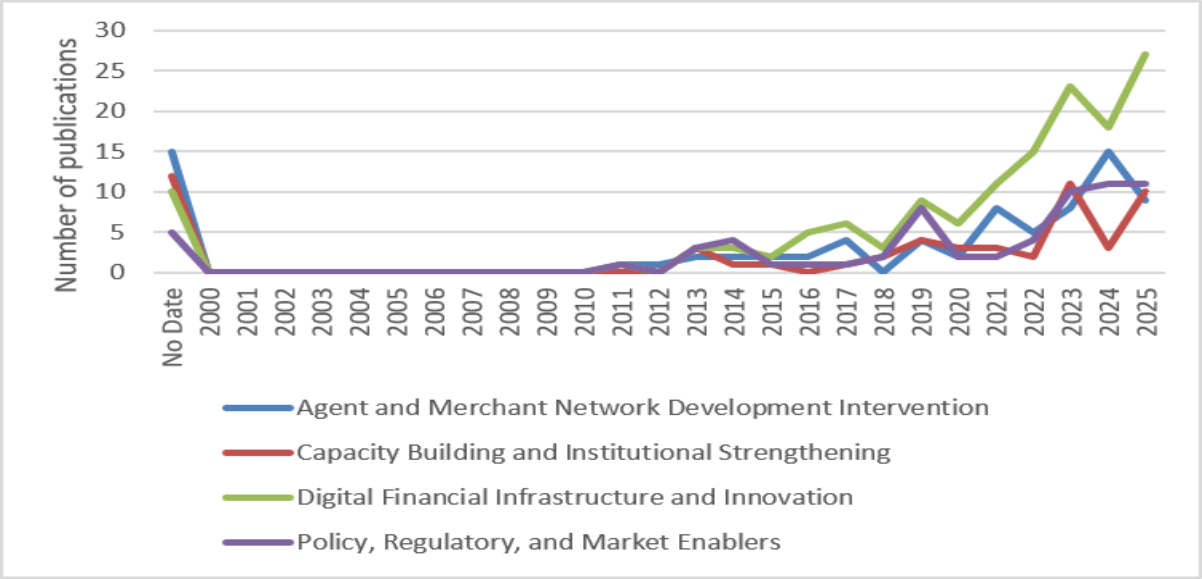


Figure 5: Publication trends by intervention category

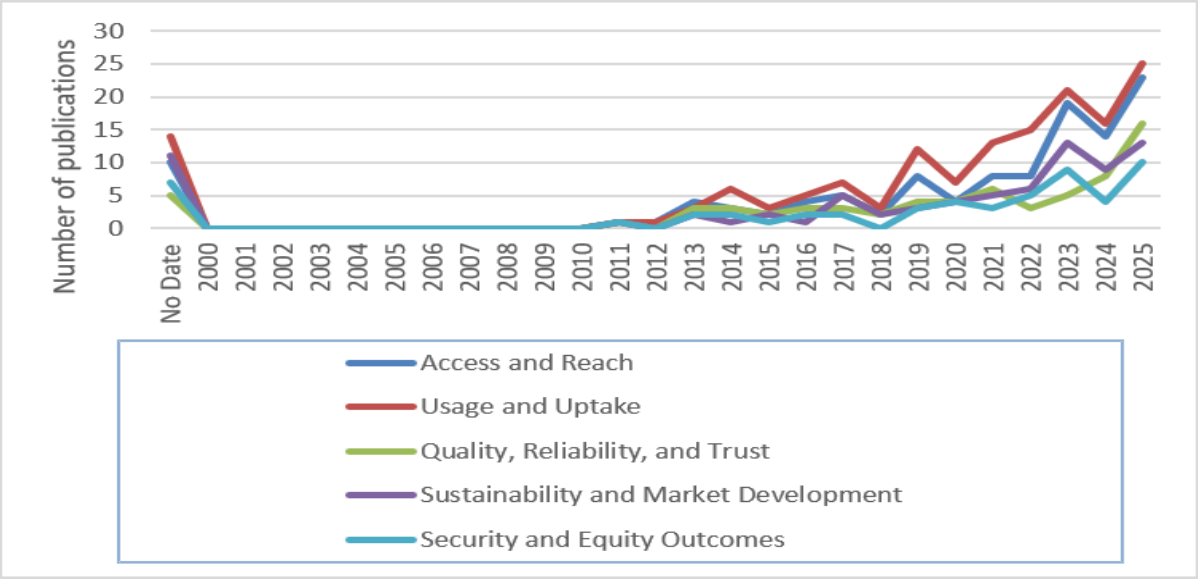


Figure 6: Publication trends by outcome domain

A similar overall growth pattern is evident across outcome categories, with minimal publications before 2010 and a steady rise, thereafter, accelerating notably from 2018 onward. Usage and Uptake and Access and Reach are consistently the most researched outcomes throughout the trend period, tracking closely together and reaching the highest publication counts by 2025 (around 24–25 publications each). Quality, Reliability, and Trust and Sustainability and Market Development follow a comparable but slightly lower trajectory, while Security and Equity Outcomes consistently register the lowest publication volume across nearly the entire period, despite a late increase by 2025. This indicates a well-established evidence cluster around access, reach, usage, and uptake outcomes, with a relative evidence gap in security and equity-related outcomes.

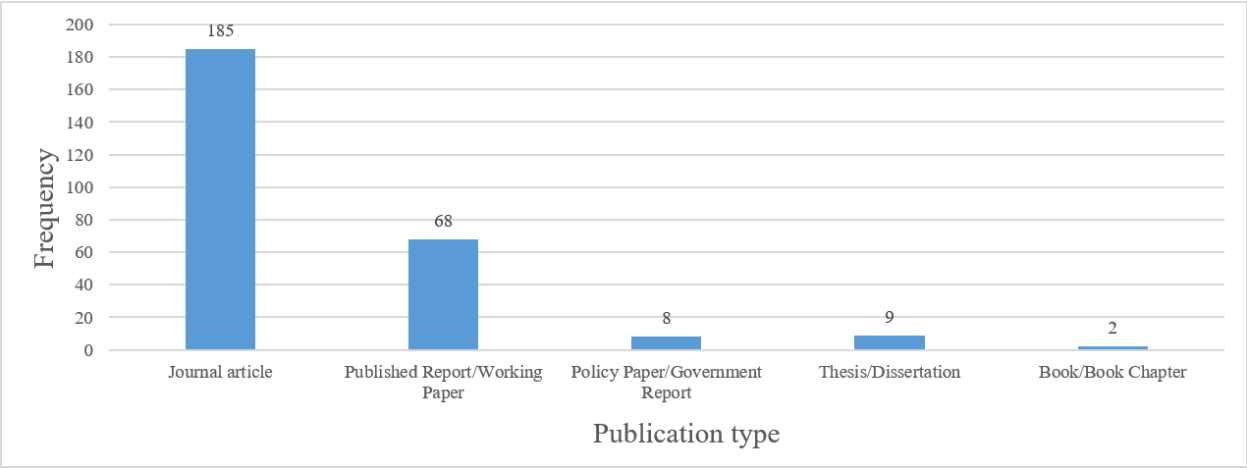


Figure 7: Publication types of included studies

The evidence base included in the map is dominated by peer-reviewed literature, with journal articles accounting for the large majority of included studies (185), followed at a distance by published reports and working papers (68). Policy papers/government reports (8), theses/dissertations (9), and books/book chapters (2) make up a small minority of the evidence base. This distribution suggests that the map draws primarily on academic research, with comparatively limited representation of grey literature or policy-oriented outputs, which may have implications for the practical/policy applicability of the evidence.

3.3.2 Type of evidence

Figure 8 shows the distribution of study designs among the 272 included studies in the Retail Finance and Distribution evidence base. Quasi-experimental designs dominate (n=172, 60.6%), followed by qualitative studies (n=71, 25.0%), experimental designs (n=35, 12.3%), and evidence syntheses (n=6, 2.1%). This indicates a heavy reliance on non-randomized impact evaluation methods such as PSM, RDD, DID, fixed effects, and IV. Randomized controlled trials and other experimental designs are relatively uncommon, and systematic reviews or meta-analyses are very rare. For the Retail Finance and Distribution domain, this distribution suggests that the evidence base is characterized by observational studies with statistical controls, with limited high-level synthesis. The scarcity of experimental evidence (12.3%) and the near absence of systematic reviews (2.1%) represent notable gaps for causal inference and evidence synthesis in this domain. The relatively high proportion of qualitative studies (25.0%) indicates some attention to implementation barriers and user experiences, but these do not provide outcome-level effectiveness estimates. Overall, the figure supports the EGM's rationale for mapping evidence and identifying gaps, particularly the shortage of experimental and synthesis-level evidence for retail finance and distribution interventions (Figure 8).

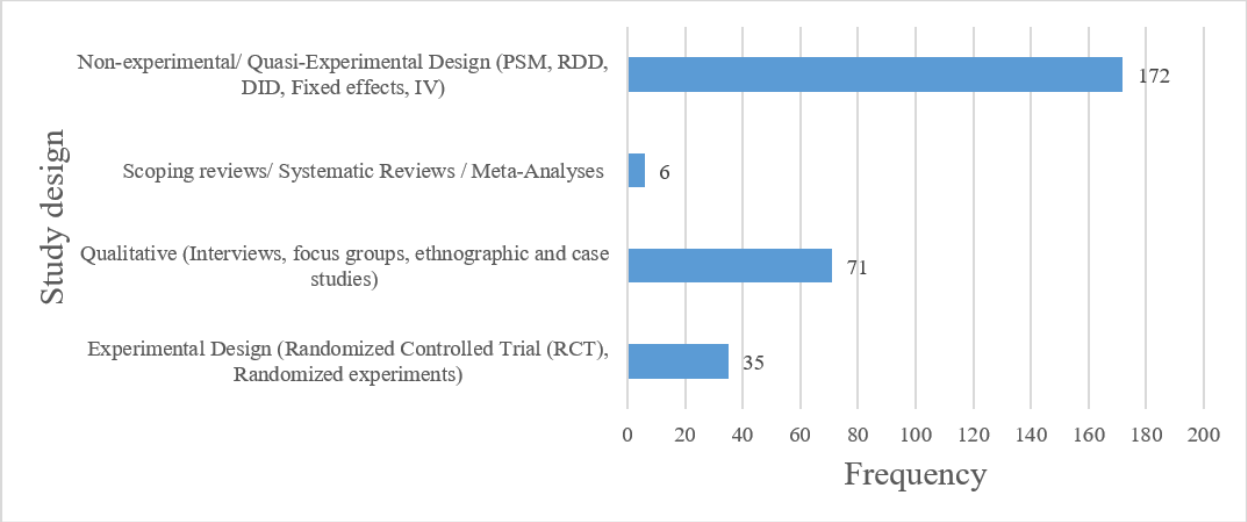


Figure 8: Study designs of included studies

3.3.3 Geographical distribution and target populations

This section describes the geographical distribution and target populations of the included studies. All 272 studies were coded by geographical region. Studies covering multiple countries or regions were assigned to every applicable category; regional and country counts are therefore not mutually exclusive.

As Figure 9 shows, the evidence base is unevenly distributed. Sub-Saharan Africa accounts for the largest share (n = 202), substantially exceeding South Asia (n = 44), Southeast Asia (n = 35), and South America (n = 8). The evidence is therefore overwhelmingly concentrated in Sub-Saharan Africa, while South America remains markedly underrepresented.

The geographical heat map in Figure 11 further illustrates these disparities. The largest country-level concentrations occur in Ghana (n = 67) and Kenya (n = 62), followed by India (n = 30), Tanzania (n = 29), Nigeria (n = 28) and Indonesia (n = 26). Evidence from Southeast Asia is concentrated particularly in Indonesia, while India accounts for most of the South Asian evidence. By contrast, many countries across

Southeast Asia and South America have few or no studies, highlighting substantial geographical gaps and limiting the extent to which findings can be generalized across LMIC contexts.

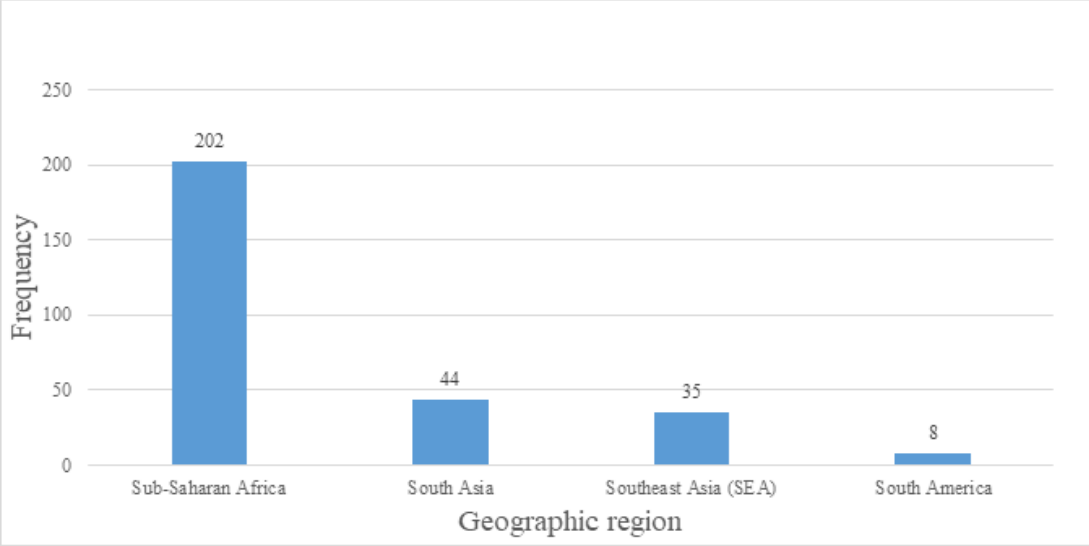


Figure 9: Geographical distribution of included studies by region

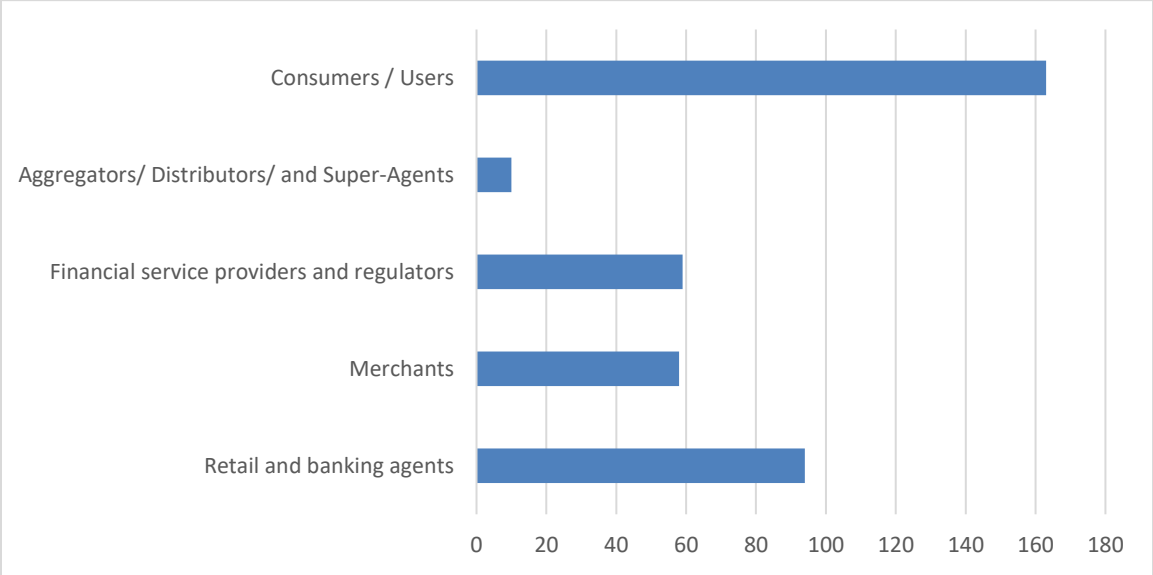


Figure 10: Target populations of included studies

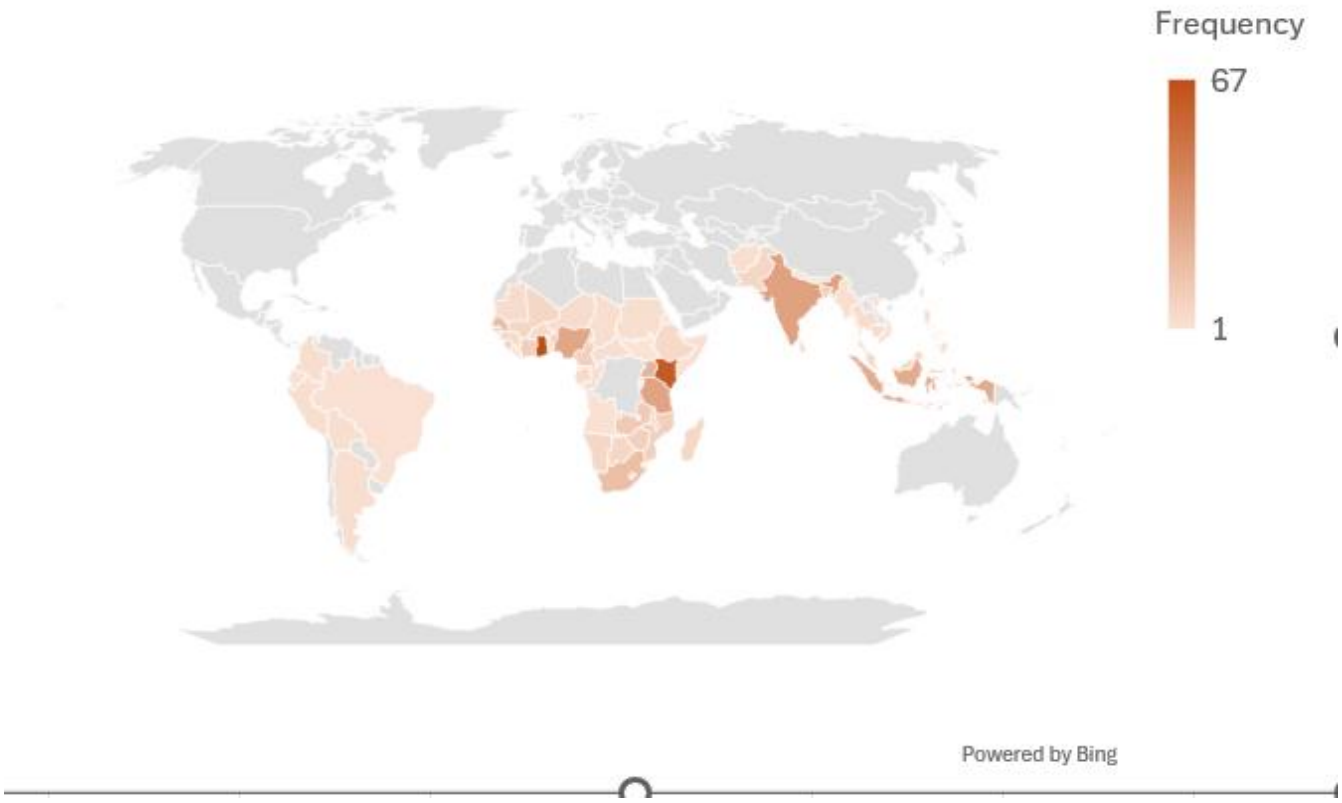


Figure 11: Geographical heat map of included studies

3.3.4 Intervention categories

The EGM illustrates four major intervention categories within the agent networks and merchant payments evidence base (Figure 12). Digital Financial Infrastructure and Innovation dominates the evidence base, with 177 studies, indicating a strong research focus on digital technologies, payment infrastructure, and innovations that support financial inclusion. This is followed by Agent and Merchant Network Development, with 107 studies reflecting considerable attention to the expansion and functioning of agent and merchant networks. Policy, Regulatory, and Market Enablers account for 81 studies, suggesting modest attention to the policy and market conditions that facilitate agent-based and merchant payment systems. Capacity Building and Institutional Strengthening is comparatively less represented, with 77 studies, indicating more limited evidence on interventions aimed at strengthening the capabilities and institutional capacity required to support these systems.

Overall, the distribution demonstrates that the evidence base is concentrated on digital financial infrastructure and innovation, while comparatively fewer studies examine capacity building and institutional strengthening. The relatively lower representation of capacity-building interventions points to a potential evidence gap concerning the institutional and human capacities needed to effectively implement, sustain, and scale agent networks and merchant payment systems. The distribution across the four categories therefore suggests a stronger emphasis on technological and network-related interventions than on institutional and capacity-related conditions that may underpin their long-term effectiveness.

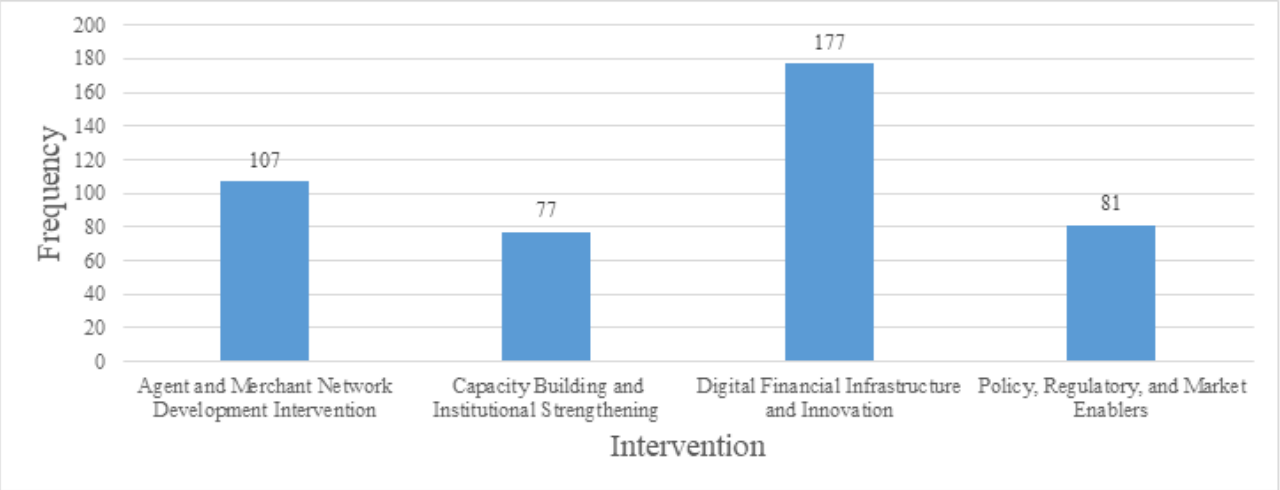


Figure 12: Intervention categories of included studies

Table 7: Intervention categories and subcategories of included studies

FREQUENCY OF CATEGORIES/SUB-CATEGORIES OF INTERVENTIONS	
Intervention	Frequency
Agent and Merchant Network Development Intervention	
Network Expansion and Reach	68
Liquidity Support	21
Infrastructure Support	48
Capacity Building and Institutional Strengthening	
Training and Skills Development	65
Institutional and Regulatory Capacity Support	25
Digital Financial Infrastructure and Innovation	
Technology and System Modernization	89
Product and Service Innovation	135
Security and Surveillance	10
Policy, Regulatory, and Market Enablers	
Regulatory Reforms and Policy Frameworks	53
Consumer Protection and Risk Management	26
Market Development and Incentives	33

3.3.5 Outcome categories

Figure 13 presents the number of studies reporting each of the five outcome domains. Usage and Uptake was the most frequently examined domain (196 studies), followed by Access and Reach (140), Sustainability and Market Development (94), Quality, Reliability, and Trust (93), and Security and Equity Outcomes (74). Individual studies could be coded under more than one domain, so these counts are not mutually exclusive.

The concentration of evidence on usage and uptake indicates a strong emphasis on whether agent networks and merchant payment services are adopted and used by consumers and other market participants. The substantial number of outcomes relating to access and reach further suggests considerable attention to the extent to which agent networks and merchant payment systems expand access to financial services, particularly among populations that may otherwise remain underserved.

By comparison, fewer outcomes are reported for sustainability and market development and for quality, reliability, and trust. This suggests comparatively less emphasis on the longer-term viability and development of agent and merchant networks, as well as on the quality, reliability, and trustworthiness of the services provided. Security and equity outcomes are the least represented, indicating a notable evidence gap concerning whether agent networks and merchant payment systems provide secure, equitable, and inclusive financial services.

Overall, the distribution highlights a more concentrated evidence base around access, adoption, and use than around the quality, sustainability, security, and equity of agent networks and merchant payment systems. This pattern points to important areas for future research, particularly on the conditions required to sustain agent and merchant networks, strengthen service reliability and trust, enhance security, and ensure that the expansion of digital financial services translates into equitable benefits across different population groups.

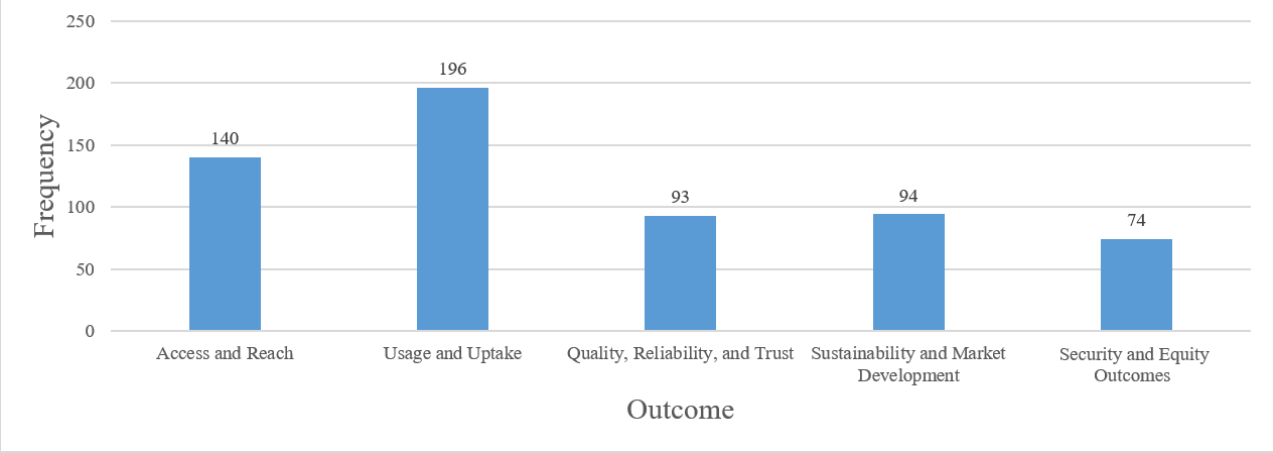


Figure 13: Frequency of types of outcomes of included studies (n=272).

Table 8: Frequency of categories and sub-categories of outcomes of included studies.

FREQUENCY OF CATEGORIES/SUB-CATEGORIES OF OUTCOMES	
Outcome	Frequency
Access and Reach	
Service Point Availability and Density	46
Geographic Accessibility	36
Population Coverage and Inclusion	62
Account Access and Onboarding	72
Usage and Uptake	
Transaction volume and Value	91
User Activity and Transaction Frequency	69
Product Adoption and Diversity	91
Merchant Payment Adoption	25
Quality, Reliability, and Trust	
System Performance and Reliability	30
Service Efficiency	32
Customer Experience and Satisfaction	38
Trust and Perceived Safety	62
Sustainability and Market Development	
Agent and Merchant Viability	54
Market Expansion and Investment	23
Ecosystem Development and Integration	30
Policy and Regulatory Outcomes	34
Security and Equity Outcomes	
Transaction Security and Fraud	19
Risk Exposure and Mitigation	13
Gender and Social Inclusion Outcomes	33
Distributional Equity Across Groups	31

3.3.6 Aggregate map of evidence: Outcome versus intervention categories

Table 9 maps the number of studies at each intersection of intervention and outcome categories. It identifies concentrations of research and areas with comparatively limited coverage. Study counts describe the volume of evidence, rather than its methodological quality or intervention effectiveness.

As shown in Table 9, the largest concentration of studies occurs at the intersection of Digital Financial Infrastructure and Innovation and Usage and Uptake, with 135 studies, followed by Digital Financial Infrastructure and Innovation and Access and Reach, with 97 studies. Agent and Merchant Network Development and Usage and Uptake also have a substantial concentration of studies, with 80 studies.

For Agent and Merchant Network Development, evidence ranges from 38 studies for Quality, Reliability, and Trust and Security and Equity Outcomes to 71 studies for Access and Reach. Capacity Building and Institutional Strengthening similarly shows some evidence across all five outcome categories, ranging from 35 to 55 studies.

Digital Financial Infrastructure and Innovation has the highest study count across all five outcome domains. Counts range from 52 studies for Security and Equity Outcomes to 135 for Usage and Uptake. These figures indicate research coverage and do not establish the strength or effectiveness of the interventions.

Overall, the aggregate map demonstrates that the EGM evidence base is largely concentrated around digital financial infrastructure, access, and usage, while comparatively less attention has been devoted to the quality, sustainability, security, and equity dimension**s** of agent networks and merchant payments. This distribution highlights important opportunities for future research to strengthen evidence on the broader conditions required for inclusive, reliable, secure, and sustainable agent and merchant payment ecosystems in LMICs.

Table 9: Study counts by intervention category and outcome domain

AGGREGATE MAP OF INTERVENTION BY OUTCOME CATEGORIES

	Outcome				
Intervention	Access and Reach	Usage and Uptake	Quality, Reliability, and Trust	Sustainability and Market Development	Security and Equity Outcomes
Agent and Merchant Network Development Intervention	71	80	38	46	38
Capacity Building and Institutional Strengthening	51	55	37	43	35
Digital Financial Infrastructure and Innovation	97	135	74	75	52
Policy, Regulatory, and Market Enablers	55	65	37	47	38

3.3.7 Distribution of evidence on outcome and intervention categories by study designs of included studies

Table 10 shows that the evidence base is dominated by non-experimental/quasi-experimental and qualitative study designs, with 254 and 136 studies, respectively, while experimental studies account for 58 studies and scoping/systematic reviews/meta-analyses for 11 studies. This distribution indicates a strong emphasis on assessing the implementation, effectiveness, and broader outcomes of interventions, although qualitative approaches also provide substantial evidence on processes, experiences, and contextual factors.

Across intervention categories, Digital Financial Infrastructure and Innovation represents the largest share of the evidence, particularly among non-experimental/quasi-experimental studies (n = 113; 44.5%) and qualitative studies (n = 55; 40.4%). It also accounts for a substantial proportion of experimental studies (n = 15; 25.9%) and reviews (n = 4; 36.4%). This concentration suggests that digital infrastructure, technological innovation, and related financial services constitute the most extensively investigated intervention area across study designs.

Agent and Merchant Network Development is also well represented, accounting for 54 non-experimental/quasi-experimental studies (21.3%), 32 qualitative studies (23.5%), 18 experimental studies (31.0%), and 4 reviews (36.4%). The relatively high proportion of experimental and review evidence indicates sustained interest in understanding the effectiveness and development of agent and merchant networks.

Capacity Building and Institutional Strengthening constitute another important intervention area, particularly within experimental studies (n = 20; 34.5%), where it represents the largest intervention category. It is also represented by 37 non-experimental/quasi-experimental studies (14.6%) and 21 qualitative studies (15.4%), although only one review (9.1%) addresses this category. This pattern suggests comparatively higher experimental attention to capacity and institutional interventions, but more limited synthesis-level evidence.

In contrast, Policy, Regulatory, and Market Enablers account for a smaller but consistent proportion of the evidence. They represent 50 non-experimental/quasi-experimental studies (19.7%), 28 qualitative studies (20.6%), 5 experimental studies (8.6%), and 2 reviews (18.2%). The relatively limited experimental evidence suggests that policy and regulatory interventions have been less frequently evaluated using experimental approaches than network development, capacity building, or digital financial infrastructure interventions.

Across outcome categories, Usage and Uptake represents the largest share of the evidence overall, particularly among non-experimental/quasi-experimental studies (n = 129; 37.0%). It also accounts for 49 qualitative studies (25.7%), 23 experimental studies (34.3%), and 4 reviews (30.8%). This indicates that understanding the adoption, use, and uptake of financial services and interventions is a major focus of the evidence base.

Access and Reach constitutes the second-largest outcome category, accounting for 83 non-experimental/quasi-experimental studies (23.8%), 45 qualitative studies (23.6%), 15 experimental studies (22.4%), and 2 reviews (15.4%). The relatively consistent representation across study designs suggests broad interest in whether interventions expand access to financial services and reach underserved populations.

Quality, Reliability, and Trust account for 48 non-experimental/quasi-experimental studies (13.8%), 35 qualitative studies (18.3%), 10 experimental studies (14.9%), and 2 reviews (15.4%). The relatively higher proportion of qualitative studies may reflect the importance of user experiences, perceptions, confidence, and trust in assessing the quality and reliability of financial services.

Sustainability and Market Development is represented by 53 non-experimental/quasi-experimental studies (15.2%), 32 qualitative studies (16.8%), 11 experimental studies (16.4%), and 2 reviews (15.4%). The relatively similar proportions across study designs indicate sustained but modest attention to the longer-term viability of interventions and the development of financial markets.

Finally, Security and Equity Outcomes constitute the smallest outcome category overall, accounting for 36 non-experimental/quasi-experimental studies (10.3%), 30 qualitative studies (15.7%), 8 experimental studies (11.9%), and 3 reviews (23.1%). Although the absolute volume of evidence is comparatively limited, the relatively high proportion of reviews suggests growing synthesis-level attention to issues of security, equity, and inclusion.

Overall, the distribution demonstrates that the evidence base is concentrated around Digital Financial Infrastructure and Innovation on the intervention side and Usage and Uptake and Access and Reach on the outcome side. In contrast, Policy, Regulatory, and Market Enablers and Security and Equity Outcomes receive comparatively less attention, particularly in experimental research. This pattern points to potential evidence gaps concerning the effectiveness of policy and regulatory interventions and the extent to which financial innovations deliver secure and equitable outcomes across different populations.

Table 10: Intervention categories and outcome domains by study design

DISTRIBUTION OF INTERVENTION/OUTCOME CATEGORIES AGAINST STUDY DESIGN TYPES				
	Study design			
Attributes	Experimental Design (Randomized Controlled Trial (RCT), Randomized experiments)	Qualitative (Interviews, focus groups, ethnographic and case studies)	Scoping reviews/ Systematic Reviews / Meta-Analyses	Non-experimental/ Quasi-Experimental Design (PSM, RDD, DID, Fixed effects, IV)
Intervention				
Agent and Merchant Network Development Intervention	18(31.0)	32(23.5)	4(36.4)	54(21.3)
Capacity Building and Institutional Strengthening	20(34.5)	21(15.4)	1(9.1)	37(14.6)
Digital Financial Infrastructure and Innovation	15(25.9)	55(40.4)	4(36.4)	113(44.5)
Policy, Regulatory, and Market Enablers	5(8.6)	28(20.6)	2(18.2)	50(19.7)

DISTRIBUTION OF INTERVENTION/OUTCOME CATEGORIES AGAINST STUDY DESIGN TYPES				
Total	35(100)	71(100)	6(100)	172(100)
Outcome				
Access and Reach	15(22.4)	45(23.6)	2(15.4)	83(23.8)
Usage and Uptake	23(34.3)	49(25.7)	4(30.8)	129(37.0)
Quality, Reliability, and Trust	10(14.9)	35(18.3)	2(15.4)	48(13.8)
Sustainability and Market Development	11(16.4)	32(16.8)	2(15.4)	53(15.2)
Security and Equity Outcomes	8(11.9)	30(15.7)	3(23.1)	36(10.3)
Total	35(100)	71(100)	6(100)	172(100)

3.3.8 Risk of bias in included reviews

The methodological quality of the included systematic reviews was independently assessed by pairs of reviewers using AMSTAR 2 (Shea et al., 2017), with disagreements resolved through discussion and consensus. Out of the 6 reviews included in the EGM, 5 were scoping reviews and 1 was a systematic review. The quality of the systematic review was assessed and rated low. Consistent with EGM guidance (Snilstveit et al., 2016; White et al., 2020), the methodological quality of individual primary studies was not assessed.

3.3.9 Distribution of evidence on intervention and outcome categories by geographical regions

Table 11 presents the distribution of intervention and outcome categories across the geographical regions covered by the EGM. Across all four regions, Digital Financial Infrastructure and Innovation accounted for the largest share of intervention evidence, representing 41.6% in Sub-Saharan Africa, 35.8% in South Asia, 39.1% in Southeast Asia, and 42.9% in South America. Agent and Merchant Network Development Interventions constituted the second-largest share across the regions, ranging from 21.4% in South America to 25.4% in South Asia. Capacity-building and policy-related interventions were comparatively less represented.

The distribution of outcome evidence showed a slightly different pattern. Usage and Uptake was the most frequently represented outcome category in Sub-Saharan Africa (32.9%), South Asia (29.8%), and Southeast Asia (30.2%). In contrast, Access and Reach accounted for the largest share in South America (37.5%). Quality, Reliability, and Trust, and Security and Equity Outcomes which focused primarily on the use, uptake, and accessibility of digital financial services were generally less represented across the regions. Overall, the findings showed that while intervention evidence was consistently concentrated on digital financial infrastructure and financial services.

Table 11: Intervention categories and outcome domains by geographical region

ATTRIBUTES	GEOGRAPHICAL REGIONS			
Panel A: Intervention Types	Sub-Saharan Africa (n, %)	South Asia (n, %)	Southeast Asia (SEA) (n, %)	South America (n, %)
Agent and Merchant Network Development Intervention	61 (23.7)	17 (25.4)	10 (21.7)	3 (21.4)
Capacity Building and Institutional Strengthening	40 (15.6)	14 (20.9)	9 (19.6)	2 (14.3)
Digital Financial Infrastructure and Innovation	107 (41.6)	24 (35.8)	18 (39.1)	6 (42.9)
Policy, Regulatory, and Market Enablers	49 (19.1)	12 (17.9)	9 (19.6)	3 (21.4)
Total coded intervention assignments	257 (100)	67 (100)	46 (100)	14 (100)
Panel B: Outcomes				
Access and Reach	86 (24.2)	21 (25.0)	14 (22.2)	6 (37.5)
Usage and Uptake	117 (32.9)	25 (29.8)	19 (30.2)	4 (25.0)
Quality, Reliability, and Trust	50 (14.0)	14 (16.7)	9 (14.3)	2 (12.5)
Sustainability and Market Development	61 (17.1)	12 (14.3)	13 (20.6)	2 (12.5)
Security and Equity Outcomes	42 (11.8)	12 (14.3)	8 (12.7)	2 (12.5)
Total coded outcome assignments	356 (100)	84 (100)	63 (100)	16 (100)

3.4 Trends in commissioned and non-commissioned studies

Figure 14 shows trends in the volume of commissioned and non-commissioned studies from 2000 to 2025. Non-commissioned studies dominate the evidence base. They begin appearing around 2011, rise gradually to about 10 per year by 2016, dip slightly, then increase sharply from 2020 onwards, peaking at approximately 35 studies in 2023 before declining slightly to 30 in 2025. Commissioned studies remain near zero until about 2020, after which they rise steadily to about 10 studies by 2025.

The timing suggests that the ReFinD initiative, which appears to have started around 2020, coincided with a marked increase in both types of studies. However, the effect is more pronounced for non-commissioned studies, which surged dramatically. Commissioned studies, while still relatively few, represent a new stream of evidence that was previously absent. The overall volume of research on retail finance and distribution increased substantially after 2020, indicating a growing interest and investment in this area. The gap between commissioned and non-commissioned studies remains large, with non-commissioned studies still outnumbering commissioned ones by roughly three to one by 2025.

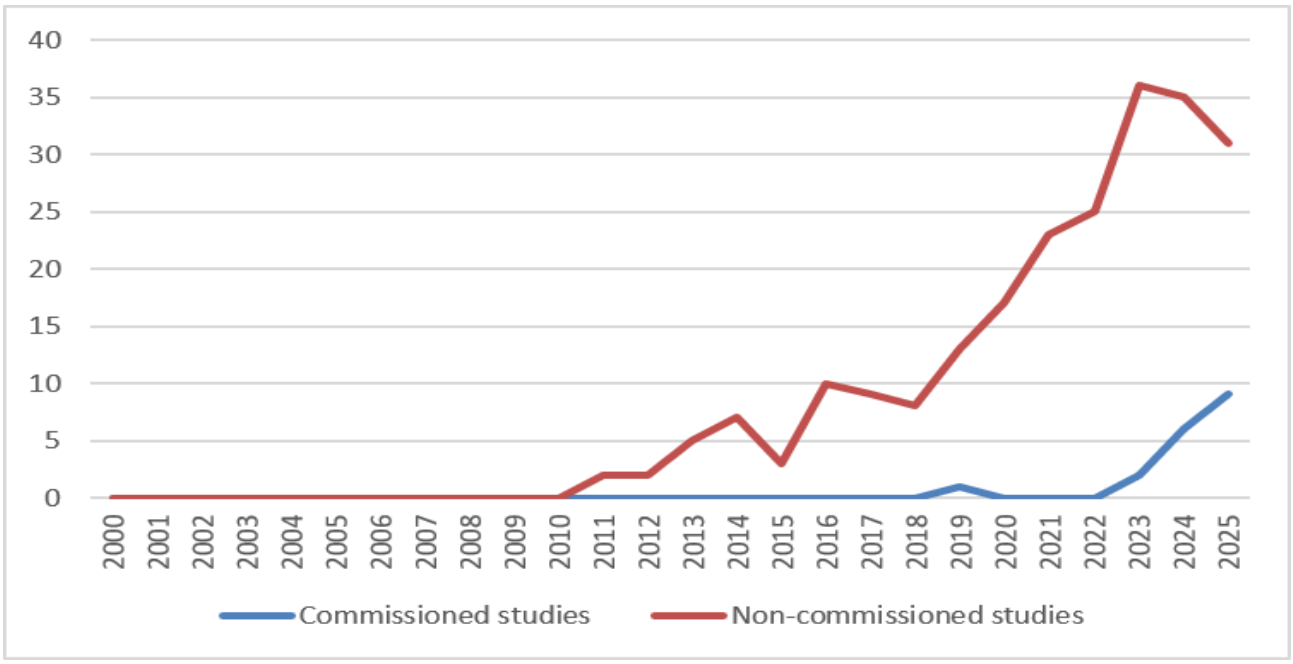


Figure 14: Trends in commissioned and non-commissioned studies

4. Discussions

4.1 Summary of main results

4.1.1 Main Findings

This evidence and gap map (EGM) identifies existing research and gaps concerning supply-side interventions that strengthen agent networks and merchant payment systems for financial inclusion in low- and middle-income countries. It includes 272 studies, comprising 242 completed studies and 30 protocols or ongoing studies published or reported between 2000 to 2025. Research increased markedly after 2019 to 2025. The evidence is concentrated in Sub-Saharan Africa (202 studies), particularly Ghana (67) and Kenya (62), with fewer studies from South Asia (44), Southeast Asia (35) and South America (8). Regional counts overlap where studies cover more than one region.

Digital Financial Infrastructure and Innovation was the most frequently studied intervention category (177 studies). Usage and Uptake (196) and Access and Reach (140) were the most frequently studied outcomes. By comparison, evidence was limited for Liquidity Support (21 studies), Security and Surveillance (10), Transaction Security and Fraud (19), and Risk Exposure and Mitigation (13). These patterns point to priorities for further research on the operational resilience and security of agent and merchant payment systems. Areas with larger bodies of evidence may warrant focused synthesis, although study volume alone does not establish effectiveness.

Non-experimental or quasi-experimental studies were the most common design (172), followed by qualitative (71) and experimental studies (35). Only six reviews were identified. These design counts overlap because a study could be assigned to more than one applicable category.

4.2 Areas of major gaps in the evidence

The map reveals a clear and consistent pattern of unevenness, where evidence on agent networks and merchant payments is concentrated and where it remains comparatively thin.

The most pronounced gap is in security and equity outcomes. This gap persists across every intervention category in the aggregate map (Table 9). Evidence on whether agent networks and merchant payment systems deliver secure and equitable outcomes, including for women, rural populations, and micro-enterprises, is therefore substantially thinner than evidence on usage and reach.

A second major gap concerns capacity building and institutional strengthening, the least-represented intervention category overall. This is a notable gap relative to the EGM's conceptual framework, which identifies training, institutional capacity, and regulatory support as key mechanisms sustaining agent and merchant viability. The comparatively limited evidence base on this category suggests that the institutional and human-capacity conditions underpinning agent and merchant networks are understudied relative to the technological and infrastructure interventions that dominate the literature.

Geographic gaps are also evident (Figures 9 and 11; Table 11). South America is under-represented relative to Sub-Saharan Africa and South Asia across both intervention and outcome evidence. Coverage within Southeast Asia is concentrated in a small number of countries, leaving large parts of the region with minimal evidence.

4.3 Potential biases in the mapping process

A structured and transparent mapping approach was applied in line with the published ReFinD protocol and established guidance for EGM (Snilstveit et al., 2016). Studies were identified through systematic searches of academic and grey literature, supplemented by backward citation tracking. Two reviewers independently screened records at the title-and-abstract and full-text stages. Disagreements were resolved through discussion or, where necessary, assessment by a third reviewer.

Systematic reviews that met the eligibility criteria were assessed using AMSTAR 2. No formal risk-of-bias assessment was conducted for individual primary studies. The EGM describes where evidence exists across interventions, outcomes and contexts; its study counts do not establish the quality of that evidence or whether an intervention is effective.

Despite these procedures, potential biases remain. Published and readily indexed studies may be easier to identify than unpublished evaluations or programme reports, and studies reporting null or negative findings may be underrepresented. The restriction to English-language studies may have excluded relevant evidence from the regions covered. Search terms, database coverage and indexing practices may also have affected which studies were retrieved. Finally, assigning studies to intervention and outcome categories required judgement where programmes addressed several related issues. These factors should be considered when interpreting concentrations and gaps in the map.

4.4 Limitations of the EGM

Despite the broad scope of the EGM and its systematic approach to mapping evidence on agent networks and merchant payment systems, several limitations were identified and should be considered when interpreting the findings.

First, the EGM was limited by the uneven geographical distribution of the available evidence. Studies were concentrated largely in Sub-Saharan Africa, with substantially fewer studies from South Asia, Southeast Asia, and South America. This imbalance limited the extent to which the findings could be considered representative of the diverse regulatory, institutional, and market contexts across LMICs.

Second, the methodological quality of the evidence varied across the studies represented in the map. While systematic reviews were appraised using AMSTAR 2, the quality and risk of bias of individual primary studies were not formally assessed. As a result, areas with a high concentration of studies reflected the volume of available research rather than necessarily the strength or reliability of the underlying evidence.

Third, the EGM was deliberately restricted to supply-side actors and interventions within agent networks and merchant payment systems. Studies focused exclusively on consumers were excluded, which meant that demand-side factors such as user behaviour, adoption experiences, and household-level outcomes were not comprehensively represented. The findings therefore reflected the supply-side evidence landscape rather than the broader digital financial inclusion ecosystem.

Also, although JSTOR and Taylor & Francis returned 8,087 and 8,060 records respectively, screening was capped at the first 500 relevance-ranked records for each platform, meaning a combined 15,147 retrieved records were not assessed for eligibility; while the stopping rule applied indicated diminishing returns, some relevant studies may have been missed as a result.

Finally, the EGM included only English-language studies published or reported within the specified study period. This restriction may have excluded relevant evidence produced in other languages, particularly from eligible countries where English was not the primary language of research dissemination. Consequently, some regional and locally generated evidence may have been underrepresented in the map.

4.5 Stakeholder engagement throughout the EGM process

Stakeholder engagement was incorporated as an integral component of the Evidence and Gap Map (EGM) on agent networks and merchant payments for financial inclusion in low- and middle-income countries (LMICs). This approach is consistent with established EGM methodology, which emphasizes stakeholder participation in defining the scope of a map, refining intervention and outcome frameworks, interpreting the evidence landscape, and supporting the policy relevance and accessibility of EGM findings (Snilstveit et al., 2016; White et al., 2020).

At the protocol-development stage, the research team held consultations with stakeholders to refine the scope and conceptual framework of the EGM. The core stakeholder groups consulted included the Retail Finance Distribution (ReFinD) team at the Institute of Statistical, Social and Economic Research (ISSER), University of Ghana; ReFinD grantees and partners; financial institutions; and researchers in financial and digital financial services at the University of Ghana. This engagement was particularly important because the EGM addresses a relatively underexplored supply-side dimension of digital financial inclusion, including agent and merchant networks, liquidity, infrastructure, incentives, interoperability, viability, and network-expansion strategies (Ameyaw et al., 2026). Previous evidence syntheses have more frequently emphasized demand-side outcomes such as adoption and use of digital financial services, providing an important rationale for engagement with stakeholders who possess operational and policy expertise in supply-side delivery systems (Mader et al., 2022).

Given the multi-country scope of the EGM, the stakeholder-engagement strategy was designed to extend beyond Ghana. Researchers, policymakers, implementers, and practitioners from countries represented in the EGM, particularly those in Sub-Saharan Africa, South Asia, Southeast Asia, and South America, were identified as potential participants. The intention was to ensure that the intervention-outcome framework reflected diverse institutional, regional, regulatory, and implementation contexts rather than being determined solely from a Ghanaian perspective.

The protocol additionally identified regional and international organizations involved in financial inclusion and digital payments as important stakeholders. These included the African Development Bank, Asian Development Bank, World Bank Group, International Finance Corporation, United Nations Capital Development Fund, International Fund for Agricultural Development, and Alliance for Financial Inclusion. Their proposed inclusion reflected their roles in policy development, programme implementation, financing, and evidence generation relating to digital financial inclusion, agent networks, and merchant payment systems in LMICs. Engagement with such institutions enhances the potential utility of an EGM because evidence maps are intended not only to catalogue research but also to support evidence-informed policy decisions and the strategic prioritization of future research (Snilstveit et al., 2013; Snilstveit et al., 2016).

Stakeholder engagement was conducted as an iterative rather than a single-event process. Initial consultations were intended to refine the scope and EGM framework, while subsequent workshops and consultations were planned to review the draft map. The Campbell Collaboration was to remain engaged

throughout title registration and map development to support adherence to established methodological standards. Stakeholder comments were to be systematically documented, reviewed by the research team, and, where relevant, incorporated into revisions of the EGM framework. This iterative approach is consistent with Campbell guidance, which regards stakeholder engagement as important for ensuring the relevance, legitimacy, usability, and transparency of an EGM (White et al., 2020).

The stakeholder process also included safeguards to address potential conflicts arising from the ReFinD team's role as both evidence producers and EGM researchers. Because studies authored or co-authored by members of the ReFinD team could qualify for inclusion, the protocol required all studies to be assessed against the predefined PICOS criteria and independently screened by two reviewers, including at least one reviewer who was not involved in the study concerned. Similar independence was specified for coding and data extraction, with disagreements to be resolved through discussion or, where required, a third independent reviewer. These procedures strengthen the transparency of the map and reduce the potential for stakeholder relationships or authorship interests to influence eligibility decisions.

4.5.1 Changes in stakeholder engagement during the EGM process

Stakeholder engagement remained an important part of the ReFinD EGM from framework development through interpretation of the map. In line with the protocol, the team consulted researchers, policymakers, practitioners, ReFinD partners, financial-sector stakeholders, international development institutions, Campbell Collaboration, etc. Their input informed the EGM’s scope, intervention and outcome categories, coding framework, and interpretation of findings.

We engaged all stakeholders in the various phases of the EGM process, from the scoping phase to help review the questions to the screening, coding, and validation phases. These stakeholders offered inputs on the coding tool, which includes the inclusion and exclusion criteria, intervention and outcome categories. No stakeholders withdrew their contribution during the EGM development process. No stakeholder withdrawal, replacement, or material reduction in planned engagement was recorded during the EGM process.

5. Authors' conclusions

This EGM systematically maps 272 studies on supply-side interventions for agent networks and merchant payments in low- and middle-income countries (LMICs). The evidence base is growing but unevenly distributed across geographical regions, intervention categories, and outcome domains.

Geographically, evidence is concentrated in Sub-Saharan Africa, particularly Ghana and Kenya, with substantially less evidence from South Asia, Southeast Asia, and South America. This limits the generalisability of findings to other LMIC contexts.

At the intervention level, Digital Financial Infrastructure and Innovation dominate, while Capacity Building and Institutional Strengthening is comparatively understudied. Security and Surveillance, Liquidity Support, and Institutional and Regulatory Capacity Support are the least represented sub-categories. Outcome evidence is concentrated on Usage and Uptake and Access and Reach, while Security and Equity Outcomes is the least examined domain. Evidence abounds at the intersection of Digital Financial Infrastructure and Innovation with Usage and Uptake.

Population-level evidence is concentrated on Consumers and Users, with limited attention to Aggregators, Distributors, and Super-Agents. The evidence base is dominated by non-experimental and quasi-experimental designs, with few experimental studies and limited reviews.

This EGM demonstrates that the availability of evidence does not equate to its effectiveness. Evidence concentrations indicate where research has been conducted, not necessarily where interventions are effective. The presence of many studies in digital infrastructure and usage does not confirm their effectiveness, and evidence gaps do not indicate intervention ineffectiveness. The EGM provides a foundation for identifying priorities for research, policy, and programming while clearly indicating where the evidence base is insufficient to support definitive conclusions.

5.1 Implications for policy

Evidence is concentrated in Sub-Saharan Africa, particularly Ghana and Kenya, so policymakers in under-represented regions such as South America, Southeast Asia, and South Asia should exercise caution when applying these findings to their contexts. The transferability of interventions to different LMIC settings remains uncertain.

Evidence on digital infrastructure and usage may not reflect all policy priorities. Strong evidence on Digital Financial Infrastructure and Innovation and Usage and Uptake supports policy decisions in these areas. Consistently scant evidence on Risk Exposure and Mitigation, Transaction Security and Fraud, and Gender and Social Inclusion Outcomes suggests policy frameworks addressing security and equity dimensions of agent networks may lack robust evidence support.

Limited evidence on institutional and regulatory capacity constrains policy development. Limited evidence on *Institutional and Regulatory Capacity Support* and *Liquidity Support* suggests policy decisions concerning regulation, supervision, and capacity development of agents, merchants, and financial service providers may be based on a scant evidence base. Evidence on population groups is uneven. Limited attention to Aggregators, Distributors, and Super-Agents suggests policy interventions targeting key supply-side actors may be informed by a smaller evidence base than interventions targeting consumers.

Methodological diversity provides complementary evidence but limits causal inference. The predominance of non-experimental and quasi-experimental designs means policy decisions should be made with appropriate caution regarding causal effectiveness. The EGM methodology does not formally assess primary study quality, so the evidence base should be interpreted with this limitation in mind.

5.2 Implications for research and practice

5.2.1 Implications for research

The limited evidence from South America, Southeast Asia, and South Asia relative to Sub-Saharan Africa indicates a need for primary studies and evidence syntheses in these under-represented regions to strengthen the overall evidence base. In addition, limited evidence on Security and Surveillance, Liquidity Support, and Institutional and Regulatory Capacity Support represents a substantial gap, and research should prioritise these under-studied intervention areas.

Further research is also needed on Risk Exposure and Mitigation, Transaction Security and Fraud, and Merchant Payment Adoption to strengthen evidence on security, risk, and equity outcomes. The limited attention given to Aggregators, Distributors, and Super-Agents suggests a need for research investigating the conditions, incentives, and constraints facing these key supply-side actors. Finally, the limited number of reviews and experimental studies indicates that the evidence base would benefit from more rigorous study designs and additional evidence syntheses, while the absence of formal quality assessment for primary studies points to a need for critical appraisal in future research.

5.2.2 Implications for practice and programming

The EGM has implications for practice and programming. First, the evidence on Digital Financial Infrastructure and Innovation and Usage and Uptake supports programme design in these areas. By contrast, limited evidence on Security and Surveillance, Liquidity Support, and Risk Exposure and Mitigation indicates that practitioners should operate with appropriate caution and incorporate learning mechanisms. Moreover, programme design should account for geographic limitations. Additionally, practitioners designing programmes in under-represented regions should exercise caution when adapting findings from the concentrated evidence base and incorporate context-specific learning.

Next, practitioners designing programmes that address security, fraud, risk, inclusion, and equity should incorporate robust monitoring and evaluation frameworks to generate evidence on these dimensions. Those designing programmes targeting liquidity and capacity dimensions should incorporate learning mechanisms to strengthen the evidence base.

Furthermore, practitioners should consider methodological limitations: the predominance of non-experimental and quasi-experimental designs means programme designs should be informed by the methodological strengths and limitations of the evidence base, and the report's limitation that individual study quality was not formally assessed further supports a cautious interpretation. Finally, practitioners, policymakers, and funders can use the EGM to identify evidence concentrations that may support programme design and evidence gaps that should inform learning and evaluation strategies.

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Funding

The authors acknowledge receiving financial support from The Gates Foundation through the Retail Finance Distribution (ReFinD) for the research and publication of this article. No internal funding was received.

Data availability statement

The data used in this study can be obtained from the corresponding author (sagyemangoppong@iced-eval.org) upon request.

Declaration of conflicting interests

The review team declares the following potential conflicts of interest and the safeguards applied to manage them throughout the review process.

Members of the review team have published studies that were eligible for inclusion in this EGM. To manage this conflict, team members did not screen, code, or make inclusion decisions on studies on which they were named as authors. All such studies were assigned to independent reviewers with no authorship connection to the study in question, and inclusion decisions were verified by a third senior reviewer.

The ReFinD programme repository was included as a supplementary grey literature source in the search strategy, as described in Section 2.1.1. This may have increased the visibility of ReFinD-funded work in the evidence base relative to equivalent studies funded by other programmes. To mitigate this, all records retrieved from the ReFinD repository were subject to the same eligibility screening criteria as those applied to other sources, and their identification source was coded in the dataset to allow sensitivity analysis if required. Ghana, the primary base of the review team, is the most studied country in the included evidence base (n = 67 studies). While this likely reflects the concentration of ReFinD-funded research activity and the team's professional networks in the country, it may also reflect a degree of bias in source identification toward studies accessible through the team's existing knowledge of the literature. This potential over-representation of Ghana and ReFinD-linked studies is discussed further as a limitation in Section 4.4.

Plans for updating the EGM

The EGM will be updated every two years when resources are available, and sufficient further studies have been conducted.

Differences Between Protocol and Full Report

The EGM largely followed the published protocol (Sarfo Ameyaw et al., 2026), but some changes were made to how evidence was identified and selected. The database search replaced EconLit with ScienceDirect, Wiley Online Library and Taylor & Francis Online. This broadened coverage of the finance and information-systems journals where much of the agent and merchant payment literature is published, while IDEAS/RePEc and SSRN kept coverage of the economics literature. The grey-literature search concentrated on repositories with searchable full-text holdings: the World Bank, J-PAL, SSRN, IDEAS/RePEc, the African Development Bank and the Asian Development Bank. It added the 3ie Evidence Portal and the ReFinD repository, which were the most direct sources of ongoing and commissioned studies. Institutional websites with limited search functionality (IMF, CGAP, AFI, IPA, UNCDF and the Gates Foundation) and the AEA RCT registry were not searched separately. Forward citation tracking planned in Google Scholar was instead carried out through OpenAlex citation and similarity searches in EPPI-Reviewer, allowing citation results to be deduplicated and screened within the same workflow.

Two eligibility changes were also made during screening. First, the screening tool was corrected to include South America, which it had omitted. Second, the protocol excluded studies on consumers, however, many studies evaluated eligible supply-side interventions but measured outcomes among consumers or users. Excluding them would have removed much of the relevant evidence, so they were retained where the intervention and outcomes fell within scope, and consumers/users were coded as a study population.

Further changes were made to coding, presentation and analysis. Quasi-experimental and regression-based observational designs were merged into a single non-experimental/quasi-experimental category because the included studies did not describe these designs in sufficient detail to consistently distinguish them. The planned evaluation-type filter was replaced by a study-design filter for the same reason, since evaluation type was rarely reported explicitly. The publication-year range was extended from 2024 to 2025 to include studies published during the map's development. Publication-type and income-classification filters were broadened to reflect the range of evidence retrieved.

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Appendices

Appendix 1 Search strategies

Search Terms:

Web of Science 22/03/2026

CATEGORY (ALL FIELDS)		SEARCH TERMS	SAMPLE SEARCH RESULTS/ HITS
Population	1 SSA, SA, SEA	("low-income country" OR "middle-income country" OR LMIC* OR "developing country*" OR "sub-Saharan Africa" OR "South Asia" OR "Southeast Asia" OR Angola OR Benin OR Botswana OR Burkina Faso OR Burundi OR Cabo Verde OR Cameroon OR Central African Republic OR Chad OR Comoros OR Congo OR CoteD'Ivoire OR Ivory coast OR "Democratic Republic of Congo" OR Djibouti OR Equatorial Guinea OR Eritrea OR Eswatini OR Ethiopia OR Gabon OR Gambia OR Ghana OR Guinea OR "Guinea-Bissau" OR Kenya OR Lesotho OR Liberia OR Madagascar OR Malawi OR Mali OR Mauritania OR Mauritius OR Mozambique OR Namibia OR Niger OR Nigeria OR Rwanda OR Senegal OR Seychelles OR Sierra Leone OR Somalia OR "South Africa" OR "South Sudan" OR Sudan OR Tanzania OR Togo OR Uganda OR Zambia OR Zimbabwe OR Afghanistan OR Bangladesh OR Bhutan OR India OR Maldives OR Nepal OR Pakistan OR Sri Lanka OR Brunei OR Cambodia OR Indonesia OR Laos OR Malaysia OR Myanmar OR Philippines OR Singapore OR Thailand OR Timor-Leste OR Vietnam OR "Africa south of the Sahara" OR "sub-Saharan Africa" OR "Africa central" OR "central Africa" OR "Africa southern" OR "southern Africa" OR "Africa eastern" OR "east Africa" OR "eastern Africa" OR "Africa western" OR "west Africa" OR "western Africa" OR "Africa" OR "South America" OR "Latin America" OR "Argentina" OR "Brazil" OR "Chile" OR "Colombia" OR "Peru" OR "Venezuela" OR "Ecuador" OR "Bolivia" OR "Paraguay" OR "Uruguay" OR "Guyana" OR "Suriname")	**2,432,976** https://tinyurl.com/26u3rcny
	2 Retail and banking agents	(agent network* OR banking agent* OR retail agent* OR mobile money agent* OR bank correspondent* OR cash-in cash-out OR CICO agent* OR financial service agent*)	**156,145** https://tinyurl.com/ycyd3faz

	3 Merchants	(merchant* OR "small business*" OR SME* OR retailer* OR shop owner* OR payment merchant* OR "merchant acceptance")	**346,716** https://tinyurl.com/3au85wvb
	4 Financial service providers and regulators.	(bank* OR "financial institution*" OR fintech* OR "mobile network operator*" OR regulator* OR "central bank*" OR policymaker*)	**1,669,124** https://tinyurl.com/5awdp4v2
	5 Aggregators, Distributors, and Super-Agent	(aggregator* OR distributor* OR "super-agent*" OR "super-agent*" OR "master agent*" OR "principal agent*" OR wholesaler* OR intermediary*)	**52,574** https://tinyurl.com/24rsz35s
Population (All terms and fields)	**6**	**#1 AND (#2 OR #3 OR #4 OR #5)**	**155,992** https://tinyurl.com/yc6btpy6
2 Interventions	**7** Network Expansion and Reach	("agent recruitment" OR "merchant recruitment" OR "agent network expansion" OR "merchant network expansion" OR rural deployment OR "last-mile finance" OR "financial access point*" OR "agent density" OR "network outreach")	**3,811** https://tinyurl.com/2p9zv9wh
	8 Liquidity Support	(liquidity support OR e-float OR "float management" OR "working capital" OR cash management OR "agent liquidity" OR "merchant liquidity")	**27,444** https://tinyurl.com/3zexp643
	9 Infrastructure Support	(POS OR "point of sale" OR connectivity OR "digital infrastructure" OR power bank* OR solar kit* OR "network reliability")	**370,600** https://tinyurl.com/ycxy2fhf
	10 Training and Skills Development	(training OR capacity building OR skill* development OR agent training OR merchant training OR certification program* OR "financial literacy" OR "digital literacy" OR "gender-sensitive training")	**2,807,460** https://tinyurl.com/y9zszecv
	11 Institutional and Regulatory Capacity Support	("institutional capacity" OR "regulatory capacity" OR supervision OR oversight OR "technical assistance" OR "digital finance regulation" OR "fintech association*")	**505,484** https://tinyurl.com/anz55xwt
	12 Technology and System Modernization	("payment infrastructure" OR "digital payment system*" OR interoperability OR API* OR "national payment switch" OR "real-time payment*" OR "digital ID" OR e-KYC)	**277,498** https://tinyurl.com/vvn9buup
	13 Product and Service Innovation	("product innovation" OR "service innovation" OR QR code payment* OR contactless payment* OR mobile money app* OR bundled product* OR "merchant financial product*")	**29,757** https://tinyurl.com/5cjyur89

	14 Security and Surveillance	(security OR surveillance OR fraud prevention OR CCTV OR "agent security" OR "merchant safety")	**1,283,462** https://tinyurl.com/2v2np9kt
	15 Regulatory Reforms and Policy Frameworks	(regulatory reform* OR policy framework* OR licensing OR KYC OR "simplified KYC" OR "agent regulation" OR "digital finance policy" OR "gender-inclusive policy")	**590,454** https://tinyurl.com/5fxsthze
	16 Consumer Protection and Risk Management	("consumer protection" OR fraud OR risk management OR data protection OR privacy OR complaint mechanism* OR transparency OR tariff posting)	**1,599,636** https://tinyurl.com/358zkja3
	17 Market Development and Incentives	("market development" OR incentive* OR subsidy OR "transaction fee reduction" OR fintech sandbox* OR "merchant digitization" OR public-private partnership*)	**266,593** https://tinyurl.com/3xez3857
Intervention (All terms and fields)	**18**	**(#7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR 17)**	**6,948,172** https://tinyurl.com/ym5z744m
3. Outcome	**19** Agent and Merchant Penetration	(agent network performance OR network reach OR agent coverage OR sub-agent coverage OR agent density OR agent availability OR geographic expansion)	**260,321** https://tinyurl.com/5cnrzcr3
	20 Geographic Distribution	("geographic distribution" OR spatial coverage OR rural outreach OR last-mile access OR travel time reduction)	**64,634** https://tinyurl.com/2p9vs6rw
	21 Availability of Financial Service Points	("service point availability" OR agent availability OR operational agent* OR active agent*)	**152,854** https://tinyurl.com/3w2ukjh9
	22 Customer Access to Services	("access to services" OR ease of access OR account access OR inclusive access OR women access OR youth access OR disability access)	**312,104** https://tinyurl.com/4xnpszz3
	23 Transaction Volume	(transaction volume OR transaction value OR mobile money sales OR payment volume)	**25,253** https://tinyurl.com/4k4ur5x3
	24 Transaction Frequency	(transaction frequency OR usage frequency OR active user* OR repeat usage)	**89,310** https://tinyurl.com/f6kutnkd
	25 Product Diversification and Adoption	("product adoption" OR service uptake OR product diversification OR digital payment adoption)	**45,989** https://tinyurl.com/5n853zcf
	26 Service Reliability and Performance	("operational efficiency" OR transaction success rate* OR downtime OR service disruption* OR processing time OR "system reliability" OR "logistics efficiency" OR "device availability")	**2,305,535** https://tinyurl.com/3rvh8pcx

	27 Customer Experience and Trust	(trust OR confidence OR fraud incidence OR risk reduction OR complaint rate* OR dispute resolution OR "agent misconduct")	**2,128,512** https://tinyurl.com/3nkz7yuu
	28 Business Viability of Agents and Merchants	(agent profitability OR commission income OR revenue stability OR cost efficiency OR agent retention OR churn rate*)	**420,052** https://tinyurl.com/334ret7s
	29 Ecosystem and Policy Outcomes	(interoperability OR ecosystem development OR policy adoption OR private sector investment OR partnership*)	**622,496** https://tinyurl.com/2n3zfx6b
	30 Security of Transactions	(transaction security OR fraud incidence OR theft OR risk mitigation OR financial crime)	**99,929** https://tinyurl.com/yc6zs549
	31 Gender Disparity	(gender disparity OR gender gap OR women participation OR female-owned business*)	**124,181** https://tinyurl.com/5dfudy5s
Outcome (All terms and fields)	**32**	(#19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30 OR #31)	**6,153,355** https://tinyurl.com/nhyphkkm
Study design	**33**	"Case study" OR "quantitative synthesis" OR "mixed method" "qualitative method" OR "systematic review" OR "Scoping reviews" OR "summative evaluation" OR "Process evaluation" OR "Randomized Control Trials" OR "regression discontinuity" OR "propensity score" OR "comparison group" OR "control group" OR "instrumental variable" OR "experimental study" OR "quasi-experiment" OR "meta-analysis" OR "descriptive" OR "regression-based study" OR "Non-experimental"	
Combined search	**34 (#6AND #18 AND #32)**	**(#1 OR #2 OR #3 OR #4 OR #5) AND (#7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR 17) AND (#19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30 OR #31)**	**10,441** https://tinyurl.com/3wwh4k8j

Overall: Web of science

https://www.webofscience.com/wos/woscc/summary/bb707eb6-81c6-45f5-a860-830df426798d-01a7449b28/relevance/1

POPULATION COMBINED

(TITLE-ABS-KEY (("low-income country" OR "middle-income country" OR LMIC* OR "developing country*" OR "sub-Saharan Africa" OR "South Asia" OR "Southeast Asia" OR Angola OR Benin OR Botswana OR Burkina Faso OR Burundi OR Cabo Verde OR Cameroon OR Central African Republic OR Chad OR Comoros OR Congo OR CoteD'Ivoire OR Ivory coast OR "Democratic Republic of Congo" OR Djibouti OR Equatorial Guinea OR Eritrea OR Eswatini OR Ethiopia OR Gabon OR Gambia OR Ghana OR Guinea OR "Guinea-Bissau" OR Kenya OR Lesotho OR Liberia OR Madagascar OR Malawi OR Mali OR Mauritania OR Mauritius OR Mozambique OR Namibia OR Niger OR Nigeria OR Rwanda OR Senegal OR Seychelles OR Sierra Leone OR Somalia OR "South Africa" OR "South Sudan" OR Sudan OR Tanzania OR Togo OR Uganda OR Zambia OR Zimbabwe OR Afghanistan OR Bangladesh OR Bhutan OR India OR Maldives OR Nepal OR Pakistan OR Sri Lanka OR Brunei OR Cambodia OR Indonesia OR Laos OR Malaysia OR Myanmar OR Philippines OR Singapore OR Thailand OR Timor-Leste OR Vietnam) OR "africa south of the sahara" OR "sub-Saharan Africa" OR "africa central" OR "central Africa" OR "africa southern" OR "southern Africa" OR "africa eastern" OR "east Africa" OR "eastern Africa" OR "africa western" OR "west Africa" OR "western Africa" OR "Africa")) AND ((agent network* OR banking agent* OR retail agent* OR mobile money agent* OR bank correspondent* OR cash-in cash-out OR CICO agent* OR financial service agent*)) OR ((merchant* OR "small business*" OR SME* OR retailer* OR shop owner* OR payment merchant* OR "merchant acceptance")) OR ((bank* OR "financial institution*" OR fintech* OR "mobile network operator*" OR regulator* OR "central bank*" OR policymaker*)) OR ((aggregator* OR distributor* OR "super-agent*" OR "super agent*" OR "master agent*" OR "principal agent*" OR wholesaler* OR intermediary*))

INTERVENTION COMBINED

(("agent recruitment" OR "merchant recruitment" OR "agent network expansion" OR "merchant network expansion" OR rural deployment OR "last-mile finance" OR "financial access point*" OR "agent density" OR "network outreach")) OR ((liquidity support OR e-float OR "float management" OR "working capital" OR cash management OR "agent liquidity" OR "merchant liquidity")) OR ((POS OR "point of sale" OR connectivity OR "digital infrastructure" OR power bank* OR solar kit* OR "network reliability")) OR ((training OR capacity building OR skill* development OR agent training OR merchant training OR certification program* OR "financial literacy" OR "digital literacy" OR "gender-sensitive training")) OR (("institutional capacity" OR "regulatory capacity" OR supervision OR oversight OR "technical assistance" OR "digital finance regulation" OR "fintech association*")) OR (("product innovation" OR "service innovation" OR QR code payment* OR contactless payment* OR mobile money app* OR bundled product* OR "merchant financial product*")) OR ((security OR surveillance OR fraud prevention OR CCTV OR "agent security" OR "merchant safety")) OR ((regulatory reform* OR policy framework* OR licensing OR KYC OR "simplified KYC" OR "agent regulation" OR "digital finance policy" OR "gender-inclusive policy")) OR (("consumer protection" OR fraud OR risk management OR data protection OR privacy OR complaint mechanism* OR transparency OR tariff posting)) OR (("market development" OR incentive* OR subsidy OR "transaction fee reduction" OR fintech sandbox* OR "merchant digitization" OR public-private partnership*)) OR (("payment infrastructure" OR "digital payment system*" OR interoperability OR API* OR "national payment switch" OR "real-time payment*" OR "digital ID" OR e-KYC))

ALL

((TITLE-ABS-KEY (("low-income country" OR "middle-income country" OR LMIC* OR "developing country*" OR "sub-Saharan Africa" OR "South Asia" OR "Southeast Asia" OR Angola OR Benin OR Botswana OR Burkina Faso OR Burundi OR Cabo Verde OR Cameroon OR Central African Republic OR Chad OR Comoros OR Congo OR CoteD'Ivoire OR Ivory coast OR "Democratic Republic of Congo" OR Djibouti OR Equatorial Guinea OR Eritrea OR Eswatini OR Ethiopia OR Gabon OR Gambia OR Ghana OR Guinea OR "Guinea-Bissau" OR Kenya OR Lesotho OR Liberia OR Madagascar OR Malawi OR Mali OR Mauritania OR Mauritius OR Mozambique OR Namibia OR Niger OR Nigeria OR Rwanda OR Senegal OR Seychelles OR Sierra Leone OR Somalia OR "South Africa" OR "South Sudan" OR Sudan OR Tanzania OR Togo OR Uganda OR Zambia OR Zimbabwe OR Afghanistan OR Bangladesh OR Bhutan OR India OR Maldives OR Nepal OR Pakistan OR Sri Lanka OR Brunei OR Cambodia OR Indonesia OR Laos OR Malaysia OR Myanmar OR Philippines OR Singapore OR Thailand OR Timor-Leste OR Vietnam) OR "africa south of the sahara" OR "sub-Saharan Africa" OR "africa central" OR "central Africa" OR "africa southern" OR "southern Africa" OR "africa eastern" OR "east Africa" OR "eastern Africa" OR "africa western" OR "west Africa" OR "western Africa" OR "Africa" OR "Latin America" OR "Argentina" OR "Brazil" OR "Chile" OR "Colombia" OR "Peru" OR "Venezuela" OR "Ecuador" OR "Bolivia" OR "Paraguay" OR "Uruguay" OR "Guyana" OR "Surinam)) AND (("agent banking" OR "banking agent*" OR "branchless banking" OR "correspondent banking" OR "bank correspondent*" OR "retail agent*" OR "mobile money agent*" OR "financial service agent*" OR "cash-in cash-out" OR "CICO" OR "CICO agent*" OR "payment agent*" OR "local agent*" OR "field agent*" OR "last mile agent*" OR "financial intermediary*" OR "banking intermediary*" OR "distribution agent*" OR "access point*" OR "service point*" OR "agent network*" OR "agent channel*" OR "delivery channel*" OR fintech agent* OR "digital financial service agent*")) OR ((merchant* OR "small business*" OR SME* OR retailer* OR shop owner* OR payment merchant* OR "merchant acceptance")) OR ((bank* OR "financial institution*" OR fintech* OR "mobile network operator*" OR regulator* OR "central bank*" OR policymaker*)) OR ((aggregator* OR distributor* OR "super-agent*" OR "super agent*" OR "master agent*" OR "principal agent*" OR wholesaler* OR intermediary*))) AND ((("agent recruitment" OR "merchant recruitment" OR "agent network expansion" OR "merchant network expansion" OR rural deployment OR "last-mile finance" OR "financial access point*" OR "agent density" OR "network outreach")) OR ((liquidity support OR e-float OR "float management" OR "working capital" OR cash management OR "agent liquidity" OR "merchant liquidity")) OR ((POS OR "point of sale" OR connectivity OR "digital infrastructure" OR power bank* OR solar kit* OR "network reliability")) OR ((training OR capacity building OR skill* development OR agent training OR merchant training OR certification program* OR "financial literacy" OR "digital literacy" OR "gender-sensitive training")) OR (("institutional capacity" OR "regulatory capacity" OR supervision OR oversight OR "technical assistance" OR "digital finance regulation" OR "fintech association*")) OR (("product innovation" OR "service innovation" OR QR code payment* OR contactless payment* OR mobile money app* OR bundled product* OR "merchant financial product*")) OR ((security OR surveillance OR fraud prevention OR CCTV OR "agent security" OR "merchant safety")) OR ((regulatory reform* OR policy framework* OR licensing OR KYC OR "simplified KYC" OR "agent regulation" OR "digital finance policy" OR "gender-inclusive policy")) OR (("consumer protection" OR fraud OR risk management OR data protection OR privacy OR complaint mechanism* OR transparency OR tariff posting)) OR (("market development" OR incentive* OR subsidy OR transaction fee OR fintech sandbox* OR "merchant digitization" OR public-private partnership*)) OR (("payment infrastructure" OR "digital payment*" OR interoperability OR API* OR "national payment switch" OR "real-time payment*" OR "digital ID" OR e-KYC))) AND (((agent performance OR "network reach" OR "agent coverage" OR "sub-agent coverage" OR "agent density" OR "agent availability" OR "geographic expansion")) OR (("geographic distribution" OR spatial coverage OR rural outreach OR last-mile access OR travel time reduction)) OR (("service

point availability" OR agent availability OR operational agent* OR ACTIVE agent*)) OR (("access to services" OR ease of access OR account access OR inclusive access OR women access OR youth access OR disability access)) OR ((transaction volume OR transaction value OR mobile money sales OR payment volume)) OR ((transaction frequency OR usage frequency OR ACTIVE user* OR repeat usage)) OR (("product adoption" OR service uptake OR product diversification OR digital payment adoption)) OR (("operational efficiency" OR transaction success rate* OR downtime OR service disruption* OR processing time OR "system reliability" OR "logistics efficiency" OR "device availability")) OR ((trust OR confidence OR fraud incidence OR risk reduction OR complaint rate* OR dispute resolution OR "agent misconduct")) OR ((agent profitability OR commission income OR revenue stability OR cost efficiency OR agent retention OR churn rate*)) OR ((transaction security OR fraud incidence OR theft OR risk mitigation OR financial crime)) OR ((interoperability OR ecosystem development OR policy adoption OR private sector investment OR partnership*)) OR ((gender disparity OR gender gap OR women participation OR female-owned business*)))

Search in Scopus 19th December 2025

CATEGORY (ALL FIELDS)		Search Terms	SAMPLE SEARCH RESULTS/ HITS
1.Population	1 SSA, SA, SEA	("low-income country" OR "middle-income country" OR LMIC* OR "developing country*" OR "sub-Saharan Africa" OR "South Asia" OR "Southeast Asia" OR Angola OR Benin OR Botswana OR Burkina Faso OR Burundi OR Cabo Verde OR Cameroon OR Central African Republic OR Chad OR Comoros OR Congo OR CoteD'Ivoire OR Ivory coast OR "Democratic Republic of Congo" OR Djibouti OR Equatorial Guinea OR Eritrea OR Eswatini OR Ethiopia OR Gabon OR Gambia OR Ghana OR Guinea OR "Guinea-Bissau" OR Kenya OR Lesotho OR Liberia OR Madagascar OR Malawi OR Mali OR Mauritania OR Mauritius OR Mozambique OR Namibia OR Niger OR Nigeria OR Rwanda OR Senegal OR Seychelles OR Sierra Leone OR Somalia OR "South Africa" OR "South Sudan" OR Sudan OR Tanzania OR Togo OR Uganda OR Zambia OR Zimbabwe OR Afghanistan OR Bangladesh OR Bhutan OR India OR Maldives OR Nepal OR Pakistan OR Sri Lanka OR Brunei OR Cambodia OR Indonesia OR Laos OR Malaysia OR Myanmar OR Philippines OR Singapore OR Thailand OR Timor-Leste OR Vietnam OR "africa south of the sahara" OR "sub-Saharan Africa" OR "africa central" OR "central Africa" OR "africa southern" OR "southern Africa" OR "africa eastern" OR "east Africa" OR "eastern Africa" OR "africa western" OR "west Africa" OR "western Africa" OR "Africa"	747,192

	2 Retail and banking agents	(agent network* OR banking agent* OR retail agent* OR mobile money agent* OR bank correspondent* OR cash-in cash-out OR CICO agent* OR financial service agent*) ("agent banking" OR "banking agent*" OR "branchless banking" OR "correspondent banking" OR "bank correspondent*" OR "retail agent*" OR "mobile money agent*" OR "financial service agent*" OR "cash-in cash-out" OR "CICO" OR "CICO agent*" OR "payment agent*" OR "local agent*" OR "field agent*" OR "last mile agent*" OR "financial intermediary*" OR "banking intermediary*" OR "distribution agent*" OR "access point*" OR "service point*" OR "agent network*" OR "agent channel*" OR "delivery channel*" OR fintech agent* OR "digital financial service agent*")	26
	3 Merchants	(merchant* OR "small business*" OR SME* OR retailer* OR shop owner* OR payment merchant* OR "merchant acceptance")	22,360
	4 Financial service providers and regulators.	(bank* OR "financial institution*" OR fintech* OR "mobile network operator*" OR regulator* OR "central bank*" OR policymaker*)	8,531,726
	5 Aggregators, Distributors, and Super-Agent	(aggregator* OR distributor* OR "super-agent*" OR "super-agent*" OR "master agent*" OR "principal agent*" OR wholesaler* OR intermediary*)	333,576
Population (All terms and fields)	**6**	**#1 AND (#2 OR #3 OR #4 OR #5)**	106,514
2 Interventions	**7** Network Expansion and Reach	("agent recruitment" OR "merchant recruitment" OR "agent network expansion" OR "merchant network expansion" OR rural deployment OR "last-mile finance" OR "financial access point*" OR "agent density" OR "network outreach")	45,597
	8 Liquidity Support	(liquidity support OR e-float OR "float management" OR "working capital" OR cash management OR "agent liquidity" OR "merchant liquidity")	37,053
	9 Infrastructure Support	(POS OR "point of sale" OR connectivity OR "digital infrastructure" OR power bank* OR solar kit* OR "network reliability")	210,930
	10	(training OR capacity building OR skill* development OR agent training OR merchant training OR certification program* OR "financial	584,463

	Training and Skills Development	literacy" OR "digital literacy" OR "gender-sensitive training")	
	11 Institutional and Regulatory Capacity Support	("institutional capacity" OR "regulatory capacity" OR supervision OR oversight OR "technical assistance" OR "digital finance regulation" OR "fintech association*")	643,737
	12 Technology and System Modernization	("payment infrastructure" OR "digital payment system*" OR interoperability OR API* OR "national payment switch" OR "real-time payment*" OR "digital ID" OR e-KYC)	1,484,324
	13 Product and Service Innovation	("product innovation" OR "service innovation" OR QR code payment* OR contactless payment* OR mobile money app* OR bundled product* OR "merchant financial product*")	606
	14 Security and Surveillance	(security OR surveillance OR fraud prevention OR CCTV OR "agent security" OR "merchant safety")	984,204
	15 Regulatory Reforms and Policy Frameworks	(regulatory reform* OR policy framework* OR licensing OR KYC OR "simplified KYC" OR "agent regulation" OR "digital finance policy" OR "gender-inclusive policy")	254,112
	16 Consumer Protection and Risk Management	("consumer protection" OR fraud OR risk management OR data protection OR privacy OR complaint mechanism* OR transparency OR tariff posting)	1,658
	17 Market Development and Incentives	("market development" OR incentive* OR subsidy OR "transaction fee reduction" OR fintech sandbox* OR "merchant digitization" OR public-private partnership*)	16,233
Intervention (All terms and fields)	**18**	**(#7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR 17)**	3,999,552
Outcome	**19** Agent and Merchant Penetration	("agent network performance" OR "network reach" OR "agent coverage" OR "sub-agent coverage" OR "agent density" OR "agent availability" OR "geographic expansion")	7,871
	20 Geographic Distribution	("geographic distribution" OR spatial coverage OR rural outreach OR last-mile access OR travel time reduction)	1,099
	21 Availability of Financial Service Points	("service point availability" OR agent availability OR operational agent* OR active agent*)	486,663
	22 Customer Access to Services	("access to services" OR ease of access OR account access OR inclusive access OR women access OR youth access OR disability access)	83,105

	23 Transaction Volume	(transaction volume OR transaction value OR mobile money sales OR payment volume)	6,132
	24 Transaction Frequency	(transaction frequency OR usage frequency OR active user* OR repeat usage)	39,496
	25 Product Diversification and Adoption	("product adoption" OR service uptake OR product diversification OR digital payment adoption)	18,221
	26 Service Reliability and Performance	("operational efficiency" OR transaction success rate* OR downtime OR service disruption* OR processing time OR "system reliability" OR "logistics efficiency" OR "device availability")	67,343
	27 Customer Experience and Trust	(trust OR confidence OR fraud incidence OR risk reduction OR complaint rate* OR dispute resolution OR "agent misconduct")	10,702
	28 Business Viability of Agents and Merchants	(agent profitability OR commission income OR revenue stability OR cost efficiency OR agent retention OR churn rate*)	865
	29 Ecosystem and Policy Outcomes	(interoperability OR ecosystem development OR policy adoption OR private sector investment OR partnership*)	39,201
	30 Security of Transactions	(transaction security OR fraud incidence OR theft OR risk mitigation OR financial crime)	15,129
	31 Gender Disparity	(gender disparity OR gender gap OR women participation OR female-owned business*)	88,527
Outcome (All terms and fields)	**32**	(#19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30 OR #31)	821,765
Study design	**33**	“Case study” OR “quantitative synthesis” OR "mixed method" “qualitative method” OR “systematic review” OR “Scoping reviews” OR “summative evaluation” OR “Process evaluation” OR “Randomized Control Trials" OR "regression discontinuity" OR "propensity score" OR "comparison group" OR "control group" OR "instrumental variable" OR “experimental study” OR “quasi-experiment” OR “meta-analysis” OR “descriptive” OR “regression-based study” OR “Non-experimental”	
Combined search	34 (#6AND #18 AND #32)	(#1 OR #2 OR #3 OR #4 OR #5) AND (#7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR 17) AND (#19 OR #20	2996

		OR #21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30 OR #31)	

Scopus (Overall search terms)

Date: 19th March 2026

No. of hits: 2296

URL: https://tinyurl.com/b63k226p

((TITLE-ABS-KEY (("low-income country" OR "middle-income country" OR LMIC* OR "developing country*" OR "sub-Saharan Africa" OR "South Asia" OR "Southeast Asia" OR Angola OR Benin OR Botswana OR Burkina Faso OR Burundi OR Cabo Verde OR Cameroon OR Central African Republic OR Chad OR Comoros OR Congo OR "Democratic Republic of Congo" OR CoteD'Ivoire OR Ivory OR Djibouti OR Equatorial Guinea OR Eritrea OR Eswatini OR Ethiopia OR Gabon OR Gambia OR Ghana OR Guinea OR "Guinea-Bissau" OR Kenya OR Lesotho OR Liberia OR Madagascar OR Malawi OR Mali OR Mauritania OR Mauritius OR Mozambique OR Namibia OR Niger OR Nigeria OR Rwanda OR Senegal OR Seychelles OR Sierra Leone OR Somalia OR "South Africa" OR "South Sudan" OR Sudan OR Tanzania OR Togo OR Uganda OR Zambia OR Zimbabwe OR Afghanistan OR Bangladesh OR Bhutan OR India OR Maldives OR Nepal OR Pakistan OR Sri Lanka OR Brunei OR Cambodia OR Indonesia OR Laos OR Malaysia OR Myanmar OR Philippines OR Singapore OR Thailand OR Timor-Leste OR Vietnam) OR "africa south of the sahara" OR "sub-Saharan Africa" OR "africa central" OR "central Africa" OR "africa southern" OR "southern Africa" OR "africa eastern" OR "east Africa" OR "eastern Africa" OR "africa western" OR "west Africa" OR "western Africa" OR "Africa" OR "Latin America" OR "Argentina" OR "Brazil" OR "Chile" OR "Colombia" OR "Peru" OR "Venezuela" OR "Ecuador" OR "Bolivia" OR "Paraguay" OR "Uruguay" OR "Guyana" OR "Suriname")) AND ((agent network* OR banking agent* OR retail agent* OR mobile money agent* OR bank correspondent* OR cash-in cash-out OR CICO agent* OR financial service agent*)) OR ((merchant* OR "small business*" OR SME* OR retailer* OR shop owner* OR payment merchant* OR "merchant acceptance")) OR ((bank* OR "financial institution*" OR fintech* OR "mobile network operator*" OR regulator* OR "central bank*" OR policymaker*)) OR ((aggregator* OR distributor* OR "super-agent*" OR "super-agent*" OR "master agent*" OR "principal agent*" OR wholesaler* OR intermediary*))) AND ((("agent recruitment" OR "merchant recruitment" OR "agent network expansion" OR "merchant network expansion" OR rural deployment OR "last-mile finance" OR "financial access point*" OR "agent density" OR "network outreach")) OR ((liquidity support OR e-float OR "float management" OR "working capital" OR cash management OR "agent liquidity" OR "merchant liquidity")) OR ((POS OR "point of sale" OR connectivity OR "digital infrastructure" OR power bank* OR solar kit* OR "network reliability")) OR ((training OR capacity building OR skill* development OR agent training OR merchant training OR certification program* OR "financial literacy" OR "digital literacy" OR "gender-sensitive training")) OR (("institutional capacity" OR "regulatory capacity" OR supervision OR oversight OR "technical assistance" OR "digital finance regulation" OR "fintech association*")) OR (("product innovation" OR "service innovation" OR QR code payment* OR contactless payment* OR mobile money app* OR bundled product* OR "merchant financial product*")) OR ((security OR surveillance OR fraud prevention OR CCTV OR "agent security" OR "merchant safety")) OR ((regulatory reform* OR policy framework* OR licensing OR KYC OR "simplified KYC" OR "agent regulation" OR "digital finance policy" OR "gender-inclusive policy")) OR (("consumer protection" OR fraud OR risk management OR data protection OR privacy OR complaint mechanism* OR transparency OR tariff posting)) OR (("market development" OR incentive* OR subsidy OR "transaction fee reduction" OR fintech sandbox* OR

"merchant digitization" OR public-private partnership*)) OR (("payment infrastructure" OR "digital payment system*" OR interoperability OR API* OR "national payment switch" OR "real-time payment*" OR "digital ID" OR e-KYC))) AND ((("agent network performance" OR "network reach" OR "agent coverage" OR "sub-agent coverage" OR "agent density" OR "agent availability" OR "geographic expansion")) OR (("geographic distribution" OR spatial coverage OR rural outreach OR last-mile access OR travel time reduction)) OR (("service point availability" OR agent availability OR operational agent* OR ACTIVE agent*)) OR (("access to services" OR ease of access OR account access OR inclusive access OR women access OR youth access OR disability access)) OR ((transaction VOLUME OR transaction value OR mobile money sales OR payment VOLUME)) OR ((transaction frequency OR usage frequency OR ACTIVE user* OR repeat usage)) OR (("product adoption" OR service uptake OR product diversification OR digital payment adoption)) OR (("operational efficiency" OR transaction success rate* OR downtime OR service disruption* OR processing time OR "system reliability" OR "logistics efficiency" OR "device availability")) OR ((trust OR confidence OR fraud incidence OR risk reduction OR complaint rate* OR dispute resolution OR "agent misconduct")) OR ((agent profitability OR commission income OR revenue stability OR cost efficiency OR agent retention OR churn rate*)) OR ((transaction security OR fraud incidence OR theft OR risk mitigation OR financial crime)) OR ((interoperability OR ecosystem development OR policy adoption OR private sector investment OR partnership*)) OR ((gender disparity OR gender gap OR women participation OR female-owned business*))))

ScienceDirect 19TH March 2025

No. of hits: 1745

(retail banking OR mobile money OR agent networks OR merchant) AND (Africa OR Asia OR South America)

JSTOR 19th March 2026

No. of hits: 8087

URL: https://tinyurl.com/2b82yw7p

Screening First 500 (sorted according to relevance)

Search terms: ((retail finance OR mobile money OR agent networks OR merchant) AND (access OR usage OR inclusion OR adoption OR expansion) AND (Africa OR Asia OR South America))

IDEAS/RePEc search on 19 March 2026

URL: https://ideas.repec.org/cgi-bin/htsearch2

Number of hits: 114

Search terms: (retail finance OR mobile money OR agent networks OR merchant) AND (access OR usage OR inclusion OR adoption OR expansion) AND (Africa OR Asia OR South America)

Web of Science

URL: https://www.webofscience.com/wos/woscc/summary/53095a4f-57dc-4737-b527-fb275c43fc7d-01a6b05b88/relevance/1

(((("low-income country" OR "middle-income country" OR LMIC* OR "developing country*" OR "sub-Saharan Africa" OR "South Asia" OR "Southeast Asia" OR Angola OR Benin OR Botswana OR Burkina

Faso OR Burundi OR Cabo Verde OR Cameroon OR Central African Republic OR Chad OR Comoros OR Congo OR "Democratic Republic of Congo" OR Djibouti OR Equatorial Guinea OR Eritrea OR Eswatini OR Ethiopia OR Gabon OR Gambia OR Ghana OR Guinea OR "Guinea-Bissau" OR Kenya OR Lesotho OR Liberia OR Madagascar OR Malawi OR Mali OR Mauritania OR Mauritius OR Mozambique OR Namibia OR Niger OR Nigeria OR Rwanda OR Senegal OR Seychelles OR Sierra Leone OR Somalia OR "South Africa" OR "South Sudan" OR Sudan OR Tanzania OR Togo OR Uganda OR Zambia OR Zimbabwe OR Afghanistan OR Bangladesh OR Bhutan OR India OR Maldives OR Nepal OR Pakistan OR Sri Lanka OR Brunei OR Cambodia OR Indonesia OR Laos OR Malaysia OR Myanmar OR Philippines OR Singapore OR Thailand OR Timor-Leste OR Vietnam) OR "africa south of the sahara" OR "sub-Saharan Africa" OR "africa central" OR "central Africa" OR "africa southern" OR "southern Africa" OR "africa eastern" OR "east Africa" OR "eastern Africa" OR "africa western" OR "west Africa" OR "western Africa" OR "Africa" OR "Latin America" OR "Argentina" OR "Brazil" OR "Chile" OR "Colombia" OR "Peru" OR "Venezuela" OR "Ecuador" OR "Bolivia" OR "Paraguay" OR "Uruguay" OR "Guyana" OR "Suriname")) AND ((agent network* OR banking agent* OR retail agent* OR mobile money agent* OR bank correspondent* OR cash-in cash-out OR CICO agent* OR financial service agent*)) OR ((merchant* OR "small business*" OR SME* OR retailer* OR shop owner* OR payment merchant* OR "merchant acceptance")) OR ((bank* OR "financial institution*" OR fintech* OR "mobile network operator*" OR regulator* OR "central bank*" OR policymaker*)) OR ((aggregator* OR distributor* OR "super-agent*" OR "super-agent*" OR "master agent*" OR "principal agent*" OR wholesaler* OR intermediary*))) AND ((("agent recruitment" OR "merchant recruitment" OR "agent network expansion" OR "merchant network expansion" OR rural deployment OR "last-mile finance" OR "financial access point*" OR "agent density" OR "network outreach")) OR ((liquidity support OR e-float OR "float management" OR "working capital" OR cash management OR "agent liquidity" OR "merchant liquidity")) OR ((POS OR "point of sale" OR connectivity OR "digital infrastructure" OR power bank* OR solar kit* OR "network reliability")) OR ((training OR capacity building OR skill* development OR agent training OR merchant training OR certification program* OR "financial literacy" OR "digital literacy" OR "gender-sensitive training")) OR (("institutional capacity" OR "regulatory capacity" OR supervision OR oversight OR "technical assistance" OR "digital finance regulation" OR "fintech association*")) OR (("product innovation" OR "service innovation" OR QR code payment* OR contactless payment* OR mobile money app* OR bundled product* OR "merchant financial product*")) OR ((security OR surveillance OR fraud prevention OR CCTV OR "agent security" OR "merchant safety")) OR ((regulatory reform* OR policy framework* OR licensing OR KYC OR "simplified KYC" OR "agent regulation" OR "digital finance policy" OR "gender-inclusive policy")) OR (("consumer protection" OR fraud OR risk management OR data protection OR privacy OR complaint mechanism* OR transparency OR tariff posting)) OR (("market development" OR incentive* OR subsidy OR "transaction fee reduction" OR fintech sandbox* OR "merchant digitization" OR public-private partnership*)) OR (("payment infrastructure" OR "digital payment system*" OR interoperability OR API* OR "national payment switch" OR "real-time payment*" OR "digital ID" OR e-KYC))) AND ((("agent network performance" OR "network reach" OR "agent coverage" OR "sub-agent coverage" OR "agent density" OR "agent availability" OR "geographic expansion")) OR (("geographic distribution" OR spatial coverage OR rural outreach OR last-mile access OR travel time reduction)) OR (("service point availability" OR agent availability OR operational agent* OR ACTIVE agent*)) OR (("access to services" OR ease of access OR account access OR inclusive access OR women access OR youth access OR disability access)) OR ((transaction VOLUME OR transaction value OR mobile money sales OR payment VOLUME)) OR ((transaction frequency OR usage frequency OR ACTIVE user* OR repeat usage)) OR (("product adoption" OR service uptake OR product diversification OR digital payment adoption)) OR (("operational efficiency" OR transaction success rate* OR downtime OR service

disruption* OR processing time OR "system reliability" OR "logistics efficiency" OR "device availability")) OR ((trust OR confidence OR fraud incidence OR risk reduction OR complaint rate* OR dispute resolution OR "agent misconduct")) OR ((agent profitability OR commission income OR revenue stability OR cost efficiency OR agent retention OR churn rate*)) OR ((transaction security OR fraud incidence OR theft OR risk mitigation OR financial crime)) OR ((interoperability OR ecosystem development OR policy adoption OR private sector investment OR partnership*)) OR ((gender disparity OR gender gap OR women participation OR female-owned business*)))

Taylor & Francis

Year: 2000-2025

Language: English

Restrict by subject – Economics, Finance, Business and industry

Search terms: (retail finance OR mobile money OR agent networks OR merchant) AND (access OR usage OR inclusion OR adoption OR expansion) AND (Africa OR Asia OR South America)

Number of hits: 8060

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URL: https://tinyurl.com/24fwh4re

Wiley Online Library

Number of Hits: 3,945

Search Terms: "(retail finance OR mobile money OR agent networks OR merchant) AND (access OR usage OR inclusion OR adoption OR expansion) AND (Africa OR Asia OR South America)"

URL: https://tinyurl.com/4auhd3er

African Journals Online (AJOL)

Number of Hits: 489

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APPENDIX 2 CODING FORM			
Publication Year	2000 - 2025		
Publication Status	Complete Protocol/ Ongoing		
Publication Type	Journal article Published Report/Working Paper Policy Paper/Government Report Thesis/Dissertation Book/Book Chapter		
Region and World Bank classification	Sub-Saharan Africa South Asia Southeast Asia (SEA) South America		
Income classification (World Bank [WB])	Low income Lower Middle income Upper Middle income		
Country	Afghanistan Angola Bangladesh Benin Bhutan Brunei Darussalam Botswana Burkina Faso Burundi Cabo Verde		

APPENDIX 2 CODING FORM

	Cambodia Cameroon Central African Republic Chad Comoros Congo, Dem. Rep. Congo, Rep Côte d'Ivoire Equatorial Guinea Eritrea Eswatini Ethiopia Gabon Gambia, The Ghana Guinea Guinea-Bissau Indonesia India Kenya Laos (Lao PDR) Lesotho Liberia Madagascar Malaysia Malawi Maldives Mali Mauritania Mauritius Mozambique Myanmar (Burma) Namibia Nepal Niger Nigeria Pakistan Philippines Rwanda		

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	São Tomé and Principe Senegal Seychelles Sierra Leone Somalia South Africa South Sudan Sri Lanka Sudan Tanzania Thailand Timor-Leste (East Timor) Togo Uganda Vietnam Zambia Zimbabwe Argentina Bolivia Brazil Chile Colombia Ecuador Guyana Paraguay Peru Suriname Uruguay Venezuela		
Category	**Subcategory**	**Definition**	**Example/Indicators**

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Study Design	Experimental Design	**Randomized Field Trials (Randomized Controlled Trials, RCTs): an experimental study design in which participants are randomly assigned to either an intervention group or a control group. Random assignment can reduce confounding and support causal inference when the trial is appropriately designed and implemented.**	• Randomized Controlled Trial (RCT), • Randomized field trials
	Qualitative	Insights on behavioural drivers, implementation barriers, and user experiences	• Interviews, • Focus Groups, • Ethnographic Studies, • Case Studies
	Systematic Reviews / Meta-Analyses	Summary of evidence strength, consistency, and research gaps across contexts	• Systematic reviews, • scoping reviews, • meta-analysis, • rapid reviews
	Non- Experimental/ Quasi-Experimental Design	This combined category includes non-experimental observational studies and quasi-experimental studies that estimate intervention effects without random assignment.	• Propensity score matching (PSM) • Regression discontinuity design (RDD) • Difference-in-differences (DiD) • Fixed-effects models Instrumental variables (IV)
Study population	Retail and banking agents	Intermediaries who provide financial services on behalf of formal financial institutions such as banks, mobile network operators, or fintech companies.	• Mobile money agents, • banking correspondents, or • cash-in/cash-out operators who facilitate deposits, withdrawals, fund transfers, bill payments,

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	Merchants	Individuals or businesses that accept and process digital or electronic payments for goods and services.	• Small and medium-sized enterprises (SMEs), • shop owners, • digital payment merchants.
	Financial service providers and regulators	**Institutions and organizations that design, manage, or regulate agent and merchant payment systems.**	• Banks, • microfinance institutions, • fintech firms, • Central Bank etc
	Aggregators, distributors and super-agents	Intermediaries that provide support to a network of sub-agents, providing liquidity, training, and logistic support.	• A third-party agent network manager working on behalf of a bank, • An aggregator firm that connects small merchants to digital payment systems
	Consumers / Users	Individual users of agent and merchant payment services to conduct financial transactions.	• **Smallholder farmer** • **Market trader** • **Household**
Intervention			**Examples**
Agent and Merchant Network Development Intervention	Network Expansion and Reach	Interventions that aim to grow and strengthen agent and merchant networks, especially in underserved and rural areas, to improve access to financial services.	• Recruitment of new agents/merchants • Licensing of new agents/merchants • Rural deployment incentives • Share of agent networks among providers • Start-up support in low access areas
	Liquidity Support	Measures that enhance the liquidity for agents and merchants to deliver financial services efficiently.	• E-float financing schemes • Cash management systems

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	Infrastructure Support	**Interventions that enhance the infrastructure available to agents and merchants to deliver financial services efficiently.**	• Access to POS devices, connectivity, and power banks (solar kits, boosters) • Agent kiosk • Mobile Phone
Capacity Building and Institutional Strengthening	Training and Skills Development	Initiatives that enhance the knowledge, skills, and competencies of agents, merchants, and financial service providers to improve service quality and sustainability.	• Agent certification programs • Customer service and compliance training • Digital and financial literacy for merchants • Gender-sensitive training modules
	Institutional and Regulatory Capacity Support	Programs that build the technical and managerial capacity of financial service providers, regulators, and policymakers to sustain inclusive digital ecosystems.	• Central bank digital finance training • Support for agent/merchant supervision • Technical assistance to fintech associations, agent associations, bankers' associations
Digital Financial Infrastructure and Innovation	Technology and System Modernization	Investments in digital and payment infrastructure that enhance transaction efficiency, reliability, and interoperability.	• Real-time transfer payment systems • National payment switches • Digital ID integration for onboarding • API-based interoperability between banks and Fintechs
	Product and Service Innovation	Development of new or improved financial products and delivery mechanisms to support inclusion through agents and merchants.	• QR-code and contactless payments e.g. tapping a contactless-enabled card, phone, or wearable device • Mobile money app innovations • Bundled savings or insurance products for merchants

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	Security and Surveillance	Innovations that aim to improve security at the agents' or merchants' business location	• CCTV camera systems installation • Cash counting machines
Policy, Regulatory, and Market Enablers	Regulatory Reforms and Policy Frameworks	Reforms that enable innovation, reduce barriers to entry, and promote safe, competitive, and inclusive agent and merchant operations.	• Simplified KYC for low value accounts • Licensing frameworks for non-bank agents • Gender-inclusive digital finance policies
	Consumer Protection and Risk Management	Measures to safeguard customers and agents from fraud, unfair practices, and operational risks	• Digital fraud monitoring • Data protection frameworks • Consumer complaint mechanisms • Tariff posting
	Market Development and Incentives	Initiatives that create enabling environments and partnerships for scaling digital payments and agent networks	• Fintech sandboxes • Merchant digitization subsidies • Transaction fee reductions or incentives
Outcome			

CATEGORY	SUB-CATEGORY	DEFINITION	EXAMPLES / INDICATORS
Access and Reach	Service Point Availability and Density	Availability of agents and merchants relative to population and geography.	• Number of agents/merchants per 1,000 adults • Number of agents in rural vs. urban areas • Adaptation and usage of merchant payments
	Geographic Accessibility	Physical ease of reaching financial service points.	• Distance to nearest agent • Travel time • Waiting time • Travel risks
	Population Coverage and Inclusion	Extent to which different population groups can access services.	• Share within 5 km of agent • Access among women, youth, persons with disabilities
	Account Access and Onboarding	Uptake of entry-level financial services through agents/merchants.	• Number of new accounts; agent-facilitated registrations
Usage and Uptake	Transaction Volume and Value	Total quantity and value of transactions conducted.	• Mobile money sales/volumes • Value of transactions • Agent revenues
	User Activity and Transaction Frequency	Regularity of service usage among customers.	• **Active users per month** • **Frequency of cash-in- cash-out** • **Number of digital merchant payments processed** • **Repeat usage rates**
	Product Adoption and Diversity	Breadth of financial services used by customers.	• Uptake of savings, credit, insurance • multi-product usage

CATEGORY	SUB-CATEGORY	DEFINITION	EXAMPLES / INDICATORS
	Merchant Payment Adoption	Extent to which merchants accept and use digital payments.	• Number of merchants accepting digital payments • growth in merchant transactions • Share of customers using multiple services • Number of innovations • Improved financial service usage by merchants
Quality, Reliability, and Trust	System Performance and Reliability	Operational stability and efficiency of service delivery systems.	• Transaction success rates • System downtime or frequency failure • Average transaction processing time • Efficiency of adoption • Network connectivity and system response
	Service Efficiency	Speed and cost-effectiveness of transactions and services.	• Transaction time • service costs
	Customer Experience and Satisfaction	User perceptions of service quality and usability.	• Customer satisfaction scores • Number of complaints received and resolved • Transparency of fees and pricing
	Trust and Perceived Safety	User confidence in the safety and fairness of services.	• Perceived fraud risk • transparency of fees • trust in agents

CATEGORY	SUB-CATEGORY	DEFINITION	EXAMPLES / INDICATORS
Sustainability and Market Development	Agent and Merchant Viability	Financial sustainability and retention of agents and merchants.	• Agent profitability (revenues minus costs) • Agent costs • Average commission earned per transaction • Retention rates of active agents • Access to working capital and liquidity • Expenditure • Return on assets • Return on equity • Number of permanent branches of mobile money business • Value of transactions • Number of clients
	Market Expansion and Investment	Growth and deepening of the digital financial ecosystem.	• Level of private sector investment in agent/merchant networks • Growth of partnerships among banks, fintechs, and MNOs • Number of permanent branches
	Ecosystem Development and Integration	Degree of system-wide coordination and interoperability.	• Interoperable platforms • Bank-fintech partnerships • Network integration
	Policy and Regulatory Outcomes	Effects of policies on enabling inclusive financial systems.	• Adoption of inclusive policies • Regulatory improvements
Security and Equity Outcomes	Transaction Security and Fraud	Incidence and management of fraud and security risks.	• Report fraud cases • Theft incidents • Security breaches

CATEGORY	SUB-CATEGORY	DEFINITION	EXAMPLES / INDICATORS
	Risk Exposure and Mitigation	Vulnerability of users and agents to financial and operational risks.	• Losses due to fraud • Protection mechanisms
	Gender and Social Inclusion Outcomes	Differences in outcomes across gender and social groups.	• Gender gaps in access/usage • Female agent participation • Gender composition of firm ownership
	Distributional Equity Across Groups	Variation in benefits across population subgroups.	• Disparities by income, location