Working paper

Digital payments and the economic empowerment and inclusion of micro and small enterprises

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ODI Global Advisory

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About this publication

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This publication contains the main report, sharing findings from across the project. It is accompanied by two in-depth country case studies, on Colombia and South Africa.

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Acronyms

AFI	Alliance for Financial Inclusion
BTCA	Better than Cash Alliance
CGAP	Consultative Group to Assist the Poor
GDP	gross domestic product
GPFI	Global Partnership for Financial Inclusion
ID	identification
ICT	information and communication technology
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
ILO	International Labour Organization
J-PAL	Abdul Latif Jameel Poverty Action Lab
MSEs	micro and small enterprises
MSMEs	micro, small and medium enterprises
OECD	Organisation for Economic Co-operation and Development
POS	point of sale
PPP	purchasing power parity
QR	quick response
SMEs	small and medium enterprises
UN DESA	United Nations Department of Economic and Social Affairs
VAT	value added tax

Executive summary

As more governments, businesses and individuals shift from cash to digital payment mechanisms, a growing body of research is highlighting the emerging benefits and risks. Yet the focus to date on the impacts of this shift on micro and small enterprises (MSEs) has been relatively limited. MSEs make significant contributions to employment and economic output. Global estimates suggest that MSEs – and microenterprises specifically – constitute the broad majority of employment worldwide. There are an estimated 55–70 million formal microenterprises and 285–345 million informal enterprises in emerging markets (UN DESA, 2020). Despite their number and their contribution, they are often underserved by financial institutions and governments, particularly in lower-income contexts.

For some businesses, the transition from cash to digital payments is a foregone conclusion. Existing literature highlights the ways in which digital payments have the potential to promote the economic empowerment and inclusion of MSEs, including:

- Greater access to credit and other financial services
- Ease and convenience of payments
- Improved income, productivity and investment of business earnings (including through expanding customer base and services)
- Stronger business processes

There is, however, important variation in MSEs' experiences of digital shifts, requiring collaboration across stakeholders to mitigate risks, which include:

- Potential exclusion of marginalised MSEs
- Increased reliance on intermediaries
- Weighing startup and recurring costs against the potential efficiency and cost benefits
- Concerns about visibility and tensions around formalisation
- Data and cyber security risks, especially for those uninitiated with technology

Yet, in spite of the growing evidence base on the potential benefits associated with digitalisation for MSEs – and the steps required to mitigate potential challenges – the research has found that national digital transformation strategies often neglect this bloc. Where MSEs do feature, the focus tends to be on their potential to contribute to competitiveness and growth in a more digital economy. Digital payments are framed more in terms of improving the operational efficiency of MSEs, with less attention to boosting the benefits associated with other areas, in particular access to finance. And the extent to which these strategies discuss linkages to other government strategies and initiatives varies.

Recent global World Bank Enterprise Surveys show that significant numbers of MSEs in both the formal and the informal economy already use digital payments. For small businesses in the formal economy, use of digital payments is higher in higher-income economies than it is in lower-income economies. Nevertheless, there is significant variation across income levels; higher usage is strongly correlated with lower transaction costs. Meanwhile, for businesses operating in the informal economy, surveys from a small number of lower-income countries show that, while many use digital payment mechanisms, their pathways towards greater economic empowerment and inclusion are complicated. Concerns tied to formalisation and taxation – remain.

More in-depth research from two country case studies, Colombia and South Africa, corroborates and provides contextual nuance to these findings and global narratives:

- Perceptions on the benefits and risks of digital payments for MSEs are largely in line with the global evidence base, though certain dimensions were emphasised particularly strongly (such as the benefit of enhanced physical security and the barriers relating to mistrust of formal institutions). The importance of understanding MSEs' heterogenous needs was highlighted in both countries, particularly urban–rural and formal–informal distinctions and how these overlap with gender, socioeconomic status and citizenship.
- In neither country does the national digital transformation strategy play a significant role in setting the agenda for digital payments. In South Africa, the key strategy is a digital payments roadmap. In Colombia, there is no single document coordinating digital payment developments but cross-government coordination on relevant initiatives is partly facilitated by the national development plan. In both countries, there are multiple initiatives related to MSE uptake of digital payments, led by different institutions across government.
- Public-private coordination is evident in both countries, although the approach to developing a digital payments ecosystem in Colombia is more state-led, versus a bank-led approach in South Africa. Though, more consultation with MSE representatives was flagged as an area for further improvement in both countries, particularly to ensure greater responsiveness to MSEs' unique needs.

Looking ahead, for governments to effectively address and manage the challenges associated with MSEs adopting digital payments and fully unlock the benefits, this study highlights five key recommendations:

1. Identify where and how to expand access to digital payments for those MSEs ready and willing to undergo business transformation and prioritise and sequence the most effective interventions.

2. Strengthen the digital payment ecosystem, in partnership with the private sector and civil society, to maximise the benefits for MSEs and minimise risks, both real and perceived.

3. Meaningfully consult and engage with MSEs to improve policy design and delivery, and to build trust in digital payment initiatives.

4. Invest in coordinating institutions and capabilities, particularly capable leaders, to promote coherence across different parts of government and their strategies for digital payments targeting MSEs.

5. Carefully craft and communicate the government's expectations on the relationship between digital payments, formalisation and taxation.

1 Introduction

While use of digital payments is increasing globally, including in lower-income countries,[1] and has accelerated as a result of the Covid-19 pandemic,[2] many populations remain underserved by formal financial institutions and the digital payment systems they operate.[3] Within these underserved populations, policymakers are voicing increasing concern for MSEs, particularly those that operate in the informal economy. This is not only because they provide employment opportunities for a large segment of the vulnerable population but also because they represent the potential for productivity growth, domestic revenue mobilisation and socioeconomic development.

Many policymakers view a transition from cash to digital payments as being an enabler of this virtuous circle – for example, by providing MSEs with greater access to customers and finance – and are launching supporting initiatives. However, this transition may also introduce potential risks for MSEs that should be addressed by government sponsors, including fraud, data protection and cybersecurity threats, particularly for those MSE owners with lower levels of financial and digital literacy.

To enable a better understanding of and learning from the transition to date, this report considers the role of digital payments in the economic empowerment and inclusion of MSEs. It is motivated by four main research questions:

1. How do the economic empowerment and inclusion of MSEs, and digital payments, feature respectively and jointly in national digital transformation strategies?

2. What are the expected benefits and risks of digital payments for MSEs and governments as articulated in these strategies?

3. What government capabilities are required to realise these benefits and mitigate these risks, and what is the role of the private sector?

4. How is the rollout of these strategies proceeding in practice, and what are the key lessons to date for maximising the potential benefits and minimising the potential risks of digital payments for the empowerment and inclusion of MSEs?

Box 1 / Definitions

The use of the terms 'digital payment,' 'MSE' and 'economic empowerment and inclusion' used in this report are informed by definitions from international organisations and other relevant research.

Digital payments

This report is interested in the shift away from payments made using cash and takes a broad view of what this does and could involve.

This is in line with definitions from the World Bank and the Better than Cash Alliance, which see digital payments as 'payment instructions that enter a payments system via the Internet or other telecommunications network' (Feyen et al., 2023) and 'the transfer of value from one payment account to another using a digital device or channel' (BTCA, nd), respectively, citing examples including bank transfers, mobile money, QR codes, card payments and other innovative products.

Micro and small enterprises

MSEs are a subset of the micro, small and medium enterprise (MSME) category (which includes medium-sized enterprises) more commonly used by international financial institutions. Despite quantitative definitions, such as those outlined in the table below, 'definitions vary considerably between economies and regions' (Haider et al., 2019).

Category	Number of employees	Total assets ($)	Annual sales ($)
Micro	< 10	< $100,000	< $100,000
Small	10–49	$100,000 – <$3 million	$100,000 – < $3 million
Medium	50–300	$3 million – $15 million	$3 million – $15 million

Source: IFC (nd)

Data for MSEs specifically is not readily available but it is estimated that there are around 365–445 million MSMEs in emerging markets, of which 25–30 million are formal small and medium enterprises (SMEs), 55–70 million are formal microenterprises and 285–345 million are informal enterprises (UN DESA, 2020).

In general, the report recognises that the majority of MSEs in lower-income countries have few if any employees beyond the owner, often operate in the informal economy and generate subsistence levels of income (Dalberg, 2019; UN DESA, 2020). Worldwide, MSEs provide around 70% of employment, and microenterprises (including single entrepreneurs) provide over half (ILO, 2019). This is driven by regions such as sub-Saharan Africa, the Middle East and North Africa, South Asia, and Latin America and the Caribbean, where more than half of employment is in microenterprises (very often in businesses with just a single entrepreneur) (ibid).

Box 1 continued

Economic empowerment and inclusion

Recognising that there are no universal definitions for these terms (Hunt and Samman, 2016; Pesqué-Cela et al., 2021), the report is guided by a range of widely cited definitions.

Commonly cited definitions of **economic empowerment** note that it:

- is concerned both with increased **power** to access and control economic resources and opportunities; and **agency** to direct those resources and opportunities for chosen purposes (Fox and Romero, 2017)
- is both an **outcome** and a **process**. Outcomes include indicators such as income and asset levels, while process indicators focus on dynamics such as decision-making on the use of income and assets (Kabeer, 2001; Garikipati, 2013; Laszlo and Grantham, 2017)
- has both **objective** and **subjective** dimensions. Objective measures include levels of productivity, income and access to financial services. Subjective measures include self-esteem, stress levels and satisfaction with one's opportunities (Quisumbing et al., 2016)
- encompasses **individual-level transformation** and **social change**. In addition to eliminating *structural inequalities*, e.g. gender-based labour market inequalities (Törnqvist and Schmitz, 2009), a broad definition of economic empowerment includes a *shift in societal attitudes and power distribution*, to enable participation, contributions and benefits from economic growth in ways that are fair, respect dignity and recognise the value of contributions (Eyben et al., 2008).

Financial inclusion can be considered one component of economic inclusion, and relates to **access to formal financial services** and to the **use, cost and quality** of such services (Pesqué-Cela et al., 2021). The Global Partnership for Financial Inclusion (GPFI)[4] and the Alliance for Financial Inclusion (AFI)[5] use definitions along similar lines.

Economic inclusion looks beyond access to financial products and services to consider participation in economic development more broadly. A widely cited definition comes from the Partnership for Economic Inclusion, which defines economic inclusion as '**the gradual integration of individuals and households into broader economic and community development processes**,' which includes addressing diverse constraints and barriers across households and the community, in the local economy and in formal institutions (Andrews et al., 2021).

Box 1 discusses the definitions for the key terms – digital payments, MSEs, economic empowerment and inclusion – that guide the research presented in this report. The rest of the report proceeds as follows.

To provide the basis for the analytical sections that follow, Section 2 outlines a conceptual framework for understanding the potential benefits and risks of digital payments for MSEs. The conceptual framework is based on a review of existing relevant studies and literature.

Sections 3 and 4 both provide a global perspective on the relationship between digital payments and the economic empowerment and inclusion of MSEs.

Section 3 provides the findings from a text analysis of 109 national digital transformation strategies from the World Bank GovTech Dataset. The text analysis involved analysing how the strategies discussed key terms related to MSEs, digital payments, and economic empowerment and inclusion, either jointly or insolation, and also searched for evidence of coordination across government and between government and the private sector. Annex 1 provides further details on the methodological approach.

Section 4 discusses the findings from an analysis of available survey data on MSEs and their use of digital payments. It first includes an analysis of data from World Bank Enterprise Surveys conducted in 59 countries since 2021 (i.e. since the onset of the Covid-19 pandemic), focusing specifically on those enterprises identified as 'small businesses' (5–19 employees). This is followed by an analysis of data from recent World Bank surveys of informal enterprises operating in the main urban centres of 13 lower-income countries between 2019 and 2023.

Section 5 presents cross-cutting findings from two case studies, conducted in Colombia and South Africa in May and June of 2024. These findings are informed by interviews with representatives from relevant government and other public bodies, the private sector, civil society organisations, international development agencies and MSE associations. A review of relevant government strategy documents is also included. The full case study findings for Colombia and South Africa can be found in Annex 2 and Annex 3, respectively.

Section 6 concludes the report with key policy recommendations.

2 What impacts can digital payments have on MSE economic empowerment and inclusion?

This section outlines a framework for the ways in which the existing literature has conceptualised digital payment uptake as influencing MSEs' economic empowerment and inclusion. Appendix 1 presents a detailed visualisation of how the potential benefits and risks overlap and create pathways or barriers for the empowerment and inclusion of MSEs. It is important to stress that the framework does not aim to indicate the weight of empirical evidence for different benefits or risks. Instead, it highlights the diversity of impacts that digital payments could **potentially** generate, and the pathways through which these **might** arise.

Studies on the use of digital payments by MSEs highlight various potential benefits and risks.

Digital payments have the potential to support the economic empowerment and inclusion for MSEs by facilitating their entry into the formal financial system; strengthening their access to credit and other financial services; making payments easier, cheaper, faster and safer; and creating opportunities for greater income, productivity and investment of business earnings.

However, digital payments are also associated with various risks, such as heightened exclusion or reliance on intermediaries for MSEs struggling to access digital payment mechanisms; additional costs relating to digital device or service use; potential taxation and formalisation requirements arising from electronic income records; and the impacts of data privacy, cybersecurity and fraud threats.

2.1 Potential benefits for MSEs

Entry into the formal financial system

The need to receive (or make) a digital payment can incentivise individuals to open their first financial account.[6] Such needs increased during Covid-19, when many individuals – including self-employed persons and microentrepreneurs – set up accounts to access government emergency assistance programmes.[7] While not in itself evidence of true financial inclusion, opening an account to receive a payment can be the **first step on a pathway towards meaningful inclusion** in the formal financial system.[8]

Access to finance

Greater usage of digital payments has the potential to improve access to finance through different channels. For MSEs whose creditworthiness has historically been difficult to assess,[9] digital payments may be able to generate digital data footprints that lenders could use to generate an **alternative credit rating**.[10] For MSEs that do not own property or other assets traditionally required as loan collateral,[11] digital payment data on the inflows and outflows of movables (such as equipment, inventory and accounts receivable) can provide immediate information to a lender on available assets that can serve as **alternative forms of collateral** (Teima et al., 2022). Digital technologies can also **lower lender costs** through automated credit underwriting, monitoring and collection, and digital disbursement and repayment (ibid.), making loans to smaller enterprises more appealing, feasible and affordable for lenders.[12] Improved access to loans and capital can be **particularly important for marginalised groups**, such as smaller or women-owned businesses, which have historically had less access to loans and have been often required to pay higher interest rates and provide more collateral when they receive them (OECD and European Commission, 2023). Helping traditionally marginalised business owners overcome credit barriers can therefore play a role in **reducing structural inequalities**, by stimulating increased business income, asset growth and opportunities for marginalised groups;[13] enhancing recipients' agency, decision-making power and self-esteem (see Anderson et al., 2021);[14] and strengthening businesses' resilience (World Bank, 2022a; UNSGSA et al., 2023).

Easier, cheaper, faster and safer receipt of payments

Where there is reliable and affordable connectivity, digital delivery has often been associated with **making payments simpler, cheaper, quicker and safer** to receive.[15] In some contexts, it may also be more comfortable or socially acceptable for female entrepreneurs to engage with male suppliers and customers through remote payments than in person (Roest and Bin-Humam, 2021). Ensuring enhanced access to payments may be **particularly important during crises**, as in the case of the Covid-19 pandemic, when digitally and financially included businesses and individuals often had greater access to emergency government assistance.[16]

Improved processes to make payments for business operations

Depending on the nature and scale of the business, digitalisation may make it more efficient for MSEs to make payments, for example to **purchase supplies or pay bills and wages**.[17] Similarly, digitalisation can make compliance with **tax and social security obligations** easier.[18] If supported by appropriately designed policy arrangements, digital payments thereby have the potential to **promote the formalisation** of MSEs and their employees.[19] While the costs of formalisation can be an important concern for MSEs (see Section 2.2), formalisation may also bring MSEs important benefits, including enhanced access to services and stronger business resilience.[20]

Improved income, productivity and investment of business earnings

Digital payments have the potential to help strengthen income and business activity through multiple routes. First, MSEs may be able to **increase their customer base and sales figures** by offering additional purchase options in response to growing customer demand for digital payment and e-commerce platforms.[21]

Another potential benefit relates to improved **access to remittances for MSE owners**, which can be transferred more cheaply through digital platforms, and may thus increase the amount of money recipients receive[22] – providing valuable additional purchasing power, particularly in remote areas.[23]

Reduced transaction costs and increased customers, sales and remittances can mean more income available to MSEs, with **subsequent improvements to their productivity and resilience**.[24] This can help empower the entrepreneur or business owner objectively (in terms of their levels of income, assets, opportunities and agency), as well as subjectively (in terms of their self-esteem, stress, satisfaction levels, etc). In addition, some studies suggest that direct digital payments to individual entrepreneurs or business owners could **increase their agency over the use of funds**[25] – with particularly important effects for traditionally excluded groups such as women[26] (though there are also various challenges in this respect, related to digital access and literacy – see Section 2.2). Transferring funds directly into a digital account can also support these recipients to **save or invest those funds more effectively**.[27]

Box 2 / Potential benefits for governments

Alongside the potential benefits for MSEs, governments can also benefit from increased digitalisation of MSE payments. In general, studies suggest that digitalisation can generate more efficient flows of resources across the economy, potentially contributing to improved gross domestic product (GDP) and strengthened government service provision in wide-ranging domains (UNSGSA et al., 2023; BTCA, nd). More specifically, digitalisation can enable governments to identify MSEs and collect payments from them more efficiently. As mentioned above, this can increase tax and social security system contributions as well as formalisation rates among MSEs. For governments, this can translate to stronger fiscal sustainability of state systems and a boost to the economy (see UNSGSA et al., 2023). Across lower-middle-income countries, a McKinsey study (as cited in BTCA, 2018) estimates that governments could potentially raise collectively an extra $300 billion in revenues annually through digitising tax payments and related activities.

Digitalisation can also enable governments to identify and deliver support to MSEs more effectively, for example using digital mechanisms and information to develop packages for smaller businesses – particularly in remote areas (World Bank, 2022; World Bank and IFC, 2022). Such payments are also, in theory, more traceable – and thereby less prone to leakage – given their electronic trail.[28] However, these gains are not necessarily foreclosed; within government, digital payments also raise concerns about digital exclusion, errors in deduplication and new forms of leakage.

Finally, digitalisation of payments – by governments and in the wider economy – generates enormous amounts of data on economic trends, businesses' activities, and behaviours and preferences. Where consent is met, and where the scope and limits of data are well understood, such data can provide insights to inform government decision-making in a wide range of sectors, from financial and economic planning to education and health strategies.[29]

2.2 Potential risks to MSEs requiring targeted attention

Potential exclusion of marginalised MSEs

Without careful mitigating measures, growth in digital payments can be associated with new risks of exclusion or have disempowering effects, based on relative access to digital financial systems. While digital payments can help increase economic and financial inclusion for MSEs that **have** reliable digital access and familiarity with digital tools, they can also feed into exclusion risks for certain MSEs. Business owners who are traditionally socioeconomically disadvantaged (e.g. related to their gender, race, place of residence, income level, education, migration status, etc.) are less likely to be able to afford access to digital devices,[30] and electricity and connectivity,[31] or may see restrictive social norms limit their access.[32] They are more likely to lack identification and other documentation required to register for accounts[33] and, even when they have access to digital payment platforms, they may be unable to effectively benefit, owing to lower digital and functional literacy rates.[34]

Increased reliance on intermediaries

These barriers can have compounding effects. MSEs with worse access to digital financial services may rely more on intermediaries to use digital payments. Reliance on family members or agents to conduct transactions is significantly higher among women than men entrepreneurs.[35] This reliance on intermediaries can put people at higher risk of financial abuse or lead to the diversion of income to unintended recipients (see e.g. Taghiyeva, 2023).

Weighing new and recurring costs against potential benefits

While payment digitalisation and financial inclusion has the potential to help reduce many operational costs for MSEs, addressing the barriers above can mean MSEs also end up facing new costs when shifting to digital payments. The cost of mobile devices, data plans and mobile money transactions can be high relative to the income levels of some microentrepreneurs (see e.g. Taghiyeva, 2023). Operating costs for digital payments are particularly high where there is a lack of interoperability between payment system providers, which may require MSEs to operate multiple point-of-sale (POS) terminals, which may be expensive to maintain (World Bank and IFC, 2022).

Concerns about visibility

Formalisation and well-designed taxation policies can generate wide-ranging benefits for MSEs, in some cases resulting in increased net profits – though this depends on the specific policy design.[36] Yet, MSEs often perceive formalisation and taxation policies principally as undesirable additional costs, creating challenges for the uptake of associated digital payment mechanisms. Studies draw attention to potential concerns among MSEs about increased visibility through data trails, which potentially trigger new administrative burdens.[37] In some contexts, digital transactions are immediately subject to taxation, through digital service taxes or other measures. Depending on data-sharing policies, transaction histories – or the documentation requirements to register for digital financial services – may result in the business' activities becoming more visible, triggering taxes on business income and/or requirements for informal businesses to formalise.

Data and cybersecurity risks

Finally, where digital payment platforms do not include appropriate cyber protections and security protocols, they can invoke new risks, including around data protection, cybersecurity and fraud. Studies highlight MSE concerns about inappropriate client data use by digital service providers, with potential reputational damage to business owners (Taghiyeva, 2023). MSEs may also be anxious that they will fall prey to scammers posing as digital payment or loan providers, with the instant nature of digital payments allowing for rapid withdrawal of funds before fraudulent activity is detected (ibid.). MSEs are also vulnerable to hackers through the adoption of new devices, which may not be properly secured (World Bank and IFC, 2022).

Taken together, these hazards can discourage MSEs from adopting digital payments or hinder their experience of such payments after uptake. This can lead to heightened exclusion of already socioeconomically disadvantaged MSEs unless appropriate steps are taken to mitigate them, through stronger protection mechanisms and effective education and user support.

3 What do national digital transformation strategies say?

Analysis of 109 national digital transformation strategies shows **varying levels of attention to MSEs across countries**. While many strategies discuss the digitalisation of the broader economy and the private sector, others focus exclusively on the digital transformation of government.

Region	Number of Strategies
East Asia & Pacific	17
Europe & Central Asia	39
Latin America & Caribbean	17
Middle East & North Africa	10
North America	1
South Asia	2
Sub-Saharan Africa	23

In the first group, some do not mention MSEs specifically, while others have specific sections dedicated to MSE considerations. Those in the second group have little focus on private sector development and, consequently, very little focus on MSEs.

Overall, less than half of the strategies analysed make specific mention of MSME considerations – and an even smaller proportion have a focus on MSEs. Strategies written by external organisations, consultancies or think-tanks, and other external organisations tend to acknowledge the discourse related to financial inclusion and economic empowerment. In general, financial services are framed as a critical part of the overall digital transformation picture.

While MSEs are not specifically covered in the majority of digital transformation strategies, where they are covered, they are seen as a driver of domestic economic growth, and digitalisation is cited as a path to their economic empowerment. However, the pathways and practical steps governments outline for achieving this vision vary.

Unsurprisingly, digital transformation strategies **prioritise macro-level impacts** over micro impacts. For the most part, strategies frame MSEs as a potential driver of growth and competitiveness for the broader economy. There is a related but smaller focus on MSEs as a vehicle for individual economic empowerment. Risks to MSEs and associated implications for financial inclusion and economic empowerment see minimal discussion.

Digital payments are discussed more in terms of **MSEs' day-to-day operations** (accepting payments, paying vendors, etc.) rather than being identified as a vehicle for improving MSEs' access to financing – despite the latter being a major focus of the literature. Accordingly, the strategies focus governments' efforts on barriers related to MSEs' digital adoption. For instance, digital literacy, enabling and complementary infrastructure, and regulatory hurdles are core focus areas for advancing the use of digital payments for MSEs.

In addition, the **extent to which digital transformation strategies link to other efforts varies**. For example, some strategies reference MSE-specific strategies set out by the national government and/or municipal strategies for digitalisation. Some seek to steer efforts and, accordingly, commission future work from their or other departments. Other strategies acknowledge cross-government coordination around digitalisation as a challenge.

3.1 MSEs as a driver of economic growth

Across different strategies, and especially for lower-income economies, MSEs are identified as a driver of economic growth. Digitalisation is framed as a pathway for making MSEs more productive and competitive, allowing them to contribute more to the economy and its development, including through their formalisation and taxation.

For example, Panama's strategy mentions micro and small businesses in the context of 'economic development based on knowledge.' It sets out the goals of stimulating the use of information and communication technology (ICT) for the productive development of the country, promoting the generation of quality products with added value in knowledge and encouraging the ICT industry and digital content production and the use of ICTs by MSMEs.[38]

Digital payments are seen as particularly important for certain sectors, such as tourism and agriculture.

For example, Ethiopia's strategy aims to build the capacity of tourism SMEs, develop their human and tech capital to improve the tourist experience and ensure the adoption of the latest digital innovations (e.g. acceptance of digital payments, listing services on online websites and collecting/reporting tourist data). The strategy also identifies specific challenges, including low penetration of digital payments, automatic teller machines and POS machines at tourism destinations and a lack of standardised data frameworks across various stakeholders.[39]

The Gambia's strategy proposes that:

> Farmers and other stakeholders in the agriculture sector can be trained by ICT sector stakeholders on using digital tools, applications, and platforms. This includes **training on accessing and using digital information, services, and products to enhance productivity, profitability, and competitiveness**. It can also involve **establishing e-commerce platforms** that connect farmers with buyers and enabling digital payments to promote transparency and efficiency in the local and cross-border agriculture value chain.[40]

Finally, strategies with a more public sector focus often identify increasing formalisation via digital payments as a way to increase tax revenue. Digital payments, these strategies argue, allow for better oversight and recordkeeping, as well as the potential for more streamlined and automated tax collection. Some highlight the informal economy specifically.

3.2 Digitalisation as a path to the economic empowerment of MSEs

Among the strategies that do focus on MSEs, there is widespread recognition that larger companies benefit more from digitalisation because they have greater access to resources (e.g. financial and human capital), economies of scale and enabling infrastructure (e.g. mobile and internet technology). At the same time, there is recognition that digitalisation could represent a path to economic empowerment for MSEs, if adequately supported.

Though much of the focus is operational, some strategies discuss digital payments as a **tool for increased MSE access to financing**. For example, some countries see digitalisation and formalisation as a pathway towards activating diaspora funding.[41] The Gambia's strategy, for instance, proposes a 'diaspora fund of funds,' wherein 'the government can create a fund for the diaspora, an investment vehicle that pools capital from diaspora investors rather than directly investing in individual enterprises.'[42]

Other strategies focus on the **potential for women's economic empowerment** through digitalisation, outlining goals, policies and programmes geared towards female entrepreneurs. For example, Sierra Leone's strategy has a goal to increase empowerment opportunities through digital skills and the participation of women in national development in both the formal and the informal sectors of the economy.[43]

To ensure the benefits of digitalisation are distributed equitably, strategies cite digital literacy, access to infrastructure (including mobile phones and the internet, for instance) and regulation as key barriers in bridging the digital divide, including between larger and smaller businesses. Some strategies, such as those of The Gambia and Lesotho, focus on the rural–urban divide and the distinct considerations for each. For example, Lesotho's strategy identifies multiple compounding challenges in rural areas that limit the effective digitalisation of payments, including network connectivity issues, limits on access to electricity and fewer mobile money agents.[44]

3.3 Varying approaches to operationalising digital transformation strategies

Many strategies cite coordination – across different ministries, departments and agencies, as well as state and local governments – as a key challenge.[45] For example, Lesotho's strategy acknowledges that, 'during the strategy formulation process, almost all stakeholders identified poor coordination across the digital transformation ecosystem as a key barrier to successful digital transformation.'[46] Across strategies, there are varying approaches to addressing this challenge, particularly with respect to MSEs. Strategies also vary in their emphasis on coordination with the private sector and how they view the role of the private sector.

Some governments are taking a more delegated approach, ceding decisions about how to economically empower MSEs to lower levels of government or other departments and their strategies. For example, Montenegro's strategy cross-references its MSME strategy.[47] Others, such as Kiribati, emphasise the devolution of funding to local governments: 'The subsidiarity principle implies that decisions are taken as closely as possible to the public authorities, entrepreneurs and citizens.'[48] Twenty-six other strategies also make general reference to the role of lower levels of governments.[49]

Other strategies emphasise the need for central coordination. For example, the Dominican Republic's strategy notes the role of the Ministry of Industry, Commerce and MSMEs, with responsibility for gathering and consolidating inputs from over a dozen actors from across the government, the payments industry and MSME associations.[50] Other strategies identify the need for dedicated taskforces. For example, Lesotho's strategy proposes that the central bank establish an internal 'fintech taskforce unit,' to engage with the public and private sectors on regulation.[51]

Across strategies, there is an emphasis on coordinating with the private sector to inform the policy-making process. A total of 49 strategies explicitly mention the role of the private sector, while 17 strategies make reference to **public–private partnerships**. However, only five strategies discuss the role of the private sector in relation to micro and small enterprises.[52]

In several countries, cooperation and partnership with the private sector are linked to fostering innovation, skills development and investment and financing. This includes through promoting open dialogue between government and private sector actors and involving the private sector in central aspects of digital transformation, including cybersecurity (e.g. Denmark), management of end-user services and user experience aspects of digital transformation (e.g. Kiribati) and data protection and secure data exchange (e.g. Cambodia).

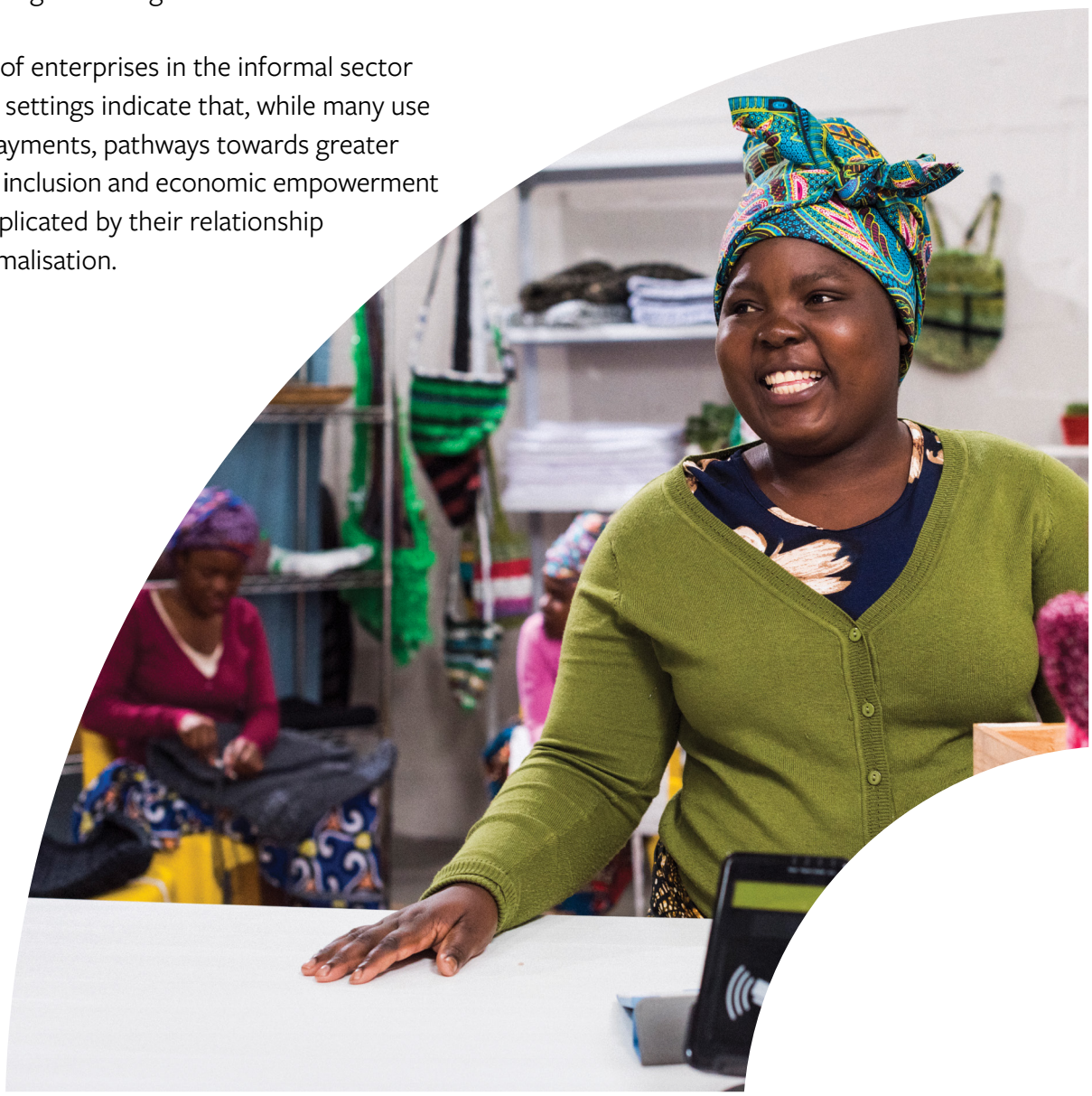
Very few strategies discuss the role of the private sector in digital payments in much detail; where this is mentioned, the roles for the private sector vary. Strategies for Ethiopia and The Gambia imply a direct role for the private sector in accelerating the uptake of digital financial services. For example, The Gambia's strategy identifies mobile network operators and telecom companies as potential partners in offering mobile money and developing mobile payment applications.[53] Other strategies are less prescriptive, focusing more on the need for dialogue with diverse private sector actors on digital transformation in general.

4 What do enterprise surveys tell us?

Recent surveys of small enterprises in the formal sector show that the use of digital payments is higher in higher-income economies than it is in lower-income economies. Nevertheless, quite a few lower-income countries outperform higher-income countries in relation to the use of digital payments by small businesses. The cost of digital payments appears to be a key factor determining their usage.

Surveys of enterprises in the informal sector in urban settings indicate that, while many use digital payments, pathways towards greater financial inclusion and economic empowerment are complicated by their relationship with formalisation.

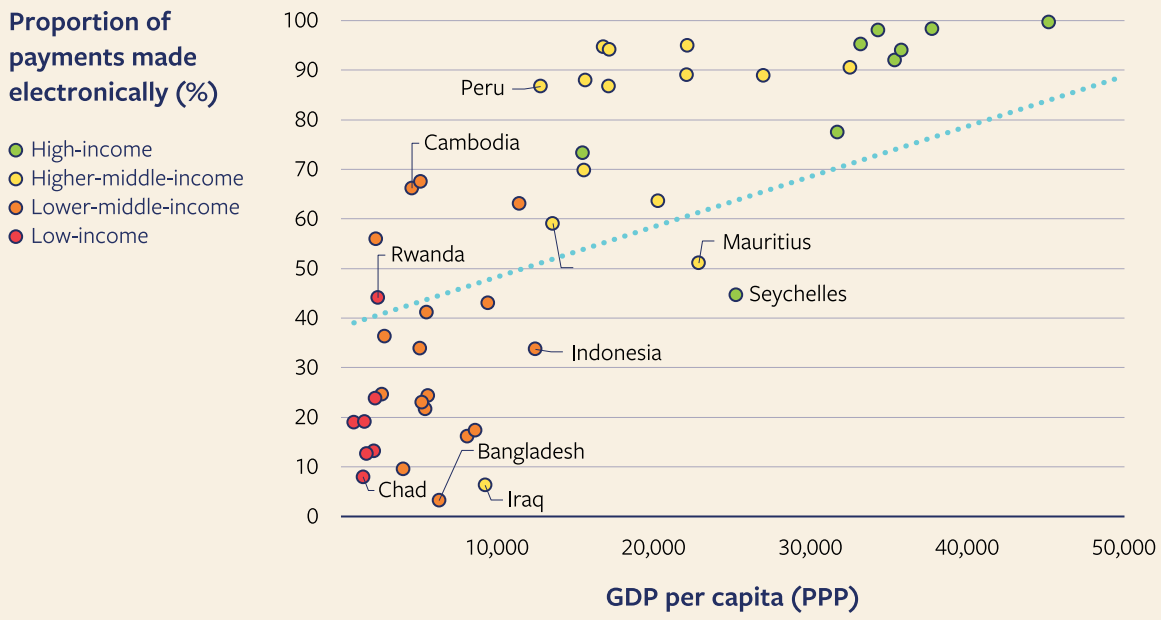
Perceived constraints in accessing finance – one of the main incentive channels for adopting digital payments identified in the literature (see Section 2) – are somewhat less pronounced among small businesses in both the formal and the informal sectors in lower-income countries than in higher-income countries.



4.1 Use of digital payments by MSEs in the formal sector varies significantly across countries

Recent World Bank Enterprise Surveys of small businesses in the formal sector show a strong correlation between proportion of payments made and received electronically and income level of the economy (**Figure 1**).[54] Nevertheless, digital payment usage among small businesses is notably higher in some lower-income economies, such as Cambodia (66%) and Rwanda (44%), and notably low in some higher-income economies, like Seychelles (45%) and Mauritius (51%).

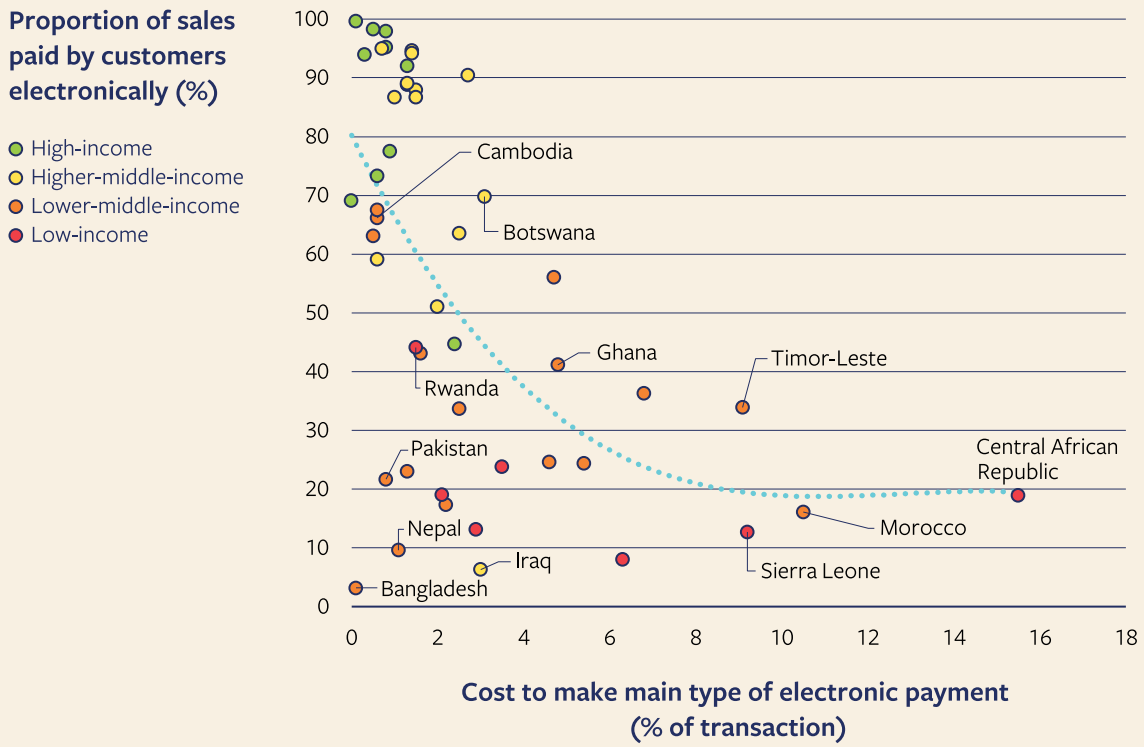
Figure 1 / Digital payment usage by small businesses in the formal sector across countries



Note: Data is for small enterprises (5–19 employees) in the formal sector in 56 economies from surveys carried out since 2021. **Source**: World Bank Enterprise Surveys: www.enterprisesurveys.org; World Development Indicators

Use of electronic payments by small businesses in the formal sector is also strongly correlated with the cost to make the payment (**Figure 2**).[55] In countries where transaction costs are less than 1% of the transaction, small businesses make 71% of their payments electronically on average. This average falls to 38% in economies where transaction costs are between 2% and 5%, and to 19% in economies with transaction costs higher than 5%.

Figure 2 / Digital payment usage by small businesses in the formal sector and transaction costs

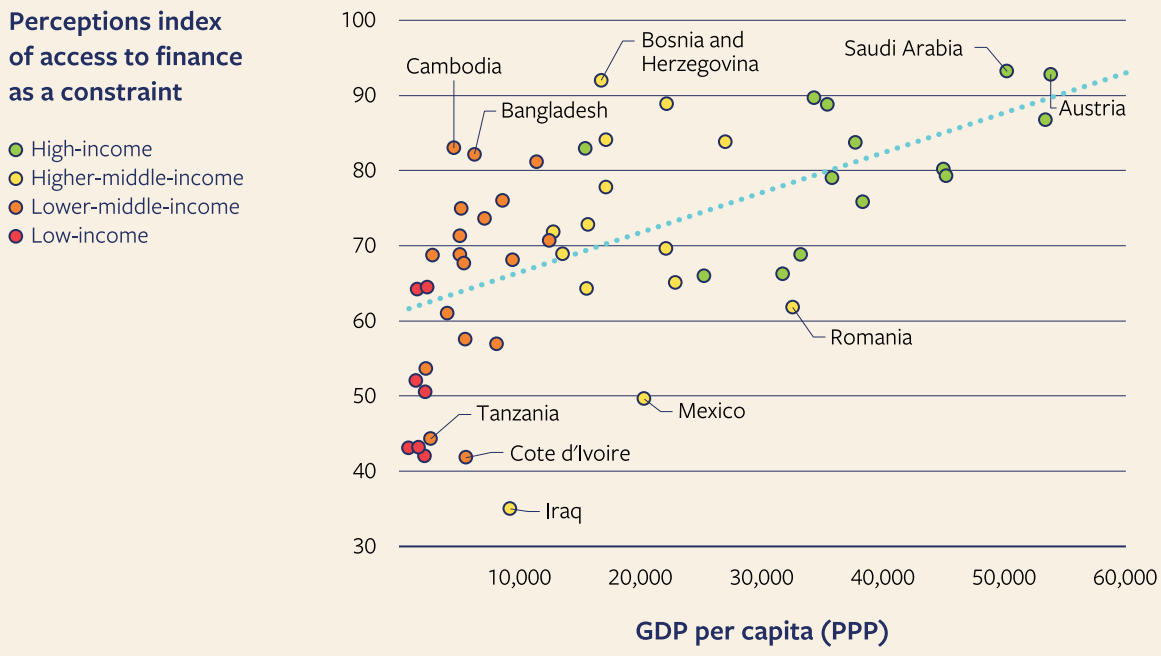


Note: Data is for small enterprises (5–19 employees) in the formal sector in 56 economies from surveys carried out since 2021. **Source**: World Bank Enterprise Surveys: www.enterprisesurveys.org; World Development Indicators

A relatively high proportion of small businesses in the formal sector perceive access to finance as a constraint to their current operations (**Figure 3**). This constraint is reported more frequently among small businesses in higher-income economies than in lower-income economies.[56] However, these perceptions may be conditioned by the comparatively higher interest rates available to small businesses in lower-income countries, which may deter them from attempting to access credit and therefore registering it as a perceived constraint.[57] Similarly, these perceptions may relate to the low growth prospects of small enterprises in lower-income economies, which again affects the extent to which they may seek credit for business expansion.[58]

Overall, these surveys show that digital payment usage among small businesses in the formal sector is greater in higher-income contexts. Nevertheless, reducing the cost of these transactions appears to be a lever for encouraging more small businesses in lower-income contexts to adopt digital payments. While a potential incentive for small businesses to transition to digital payments – a perceived need to access credit – appears to be less pronounced in lower-income contexts compared with higher-income contexts, there is significant variation on this indicator across lower-income economies, and it may be related to the interest rates and growth prospects they face.

Figure 3 / Perceptions of small businesses in the formal sector on access to finance as a constraint

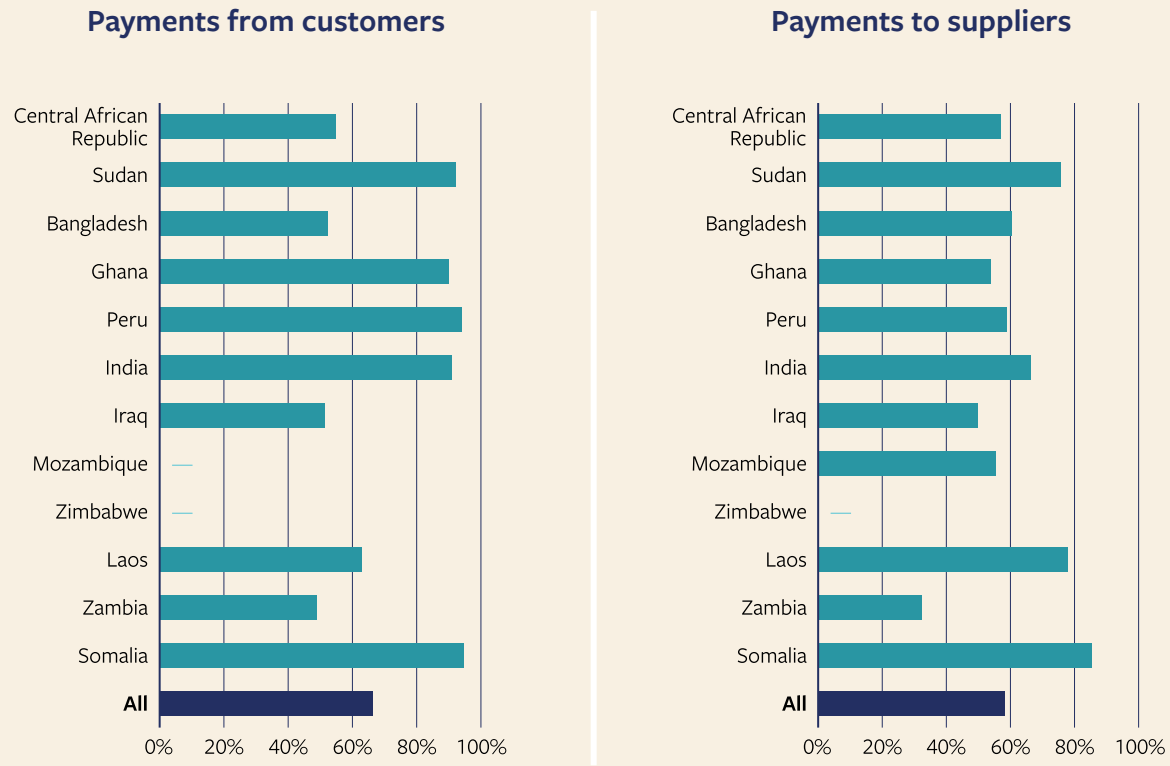


Note: Data is for small enterprises (5–19 employees) in the formal sector in 56 economies from surveys carried out since 2021. **Source**: World Bank Enterprise Surveys: www.enterprisesurveys.org; World Development Indicators

4.2 Informal MSEs' pathways towards economic empowerment and inclusion through digital payments are less clear

Available surveys of informal enterprises in urban centres across 13 lower-income countries show that over 60% on average use mobile money to receive payments from customers and to make payments to suppliers (**Figure 4**). This suggests the majority find digital payments useful and/or necessary for their operations.

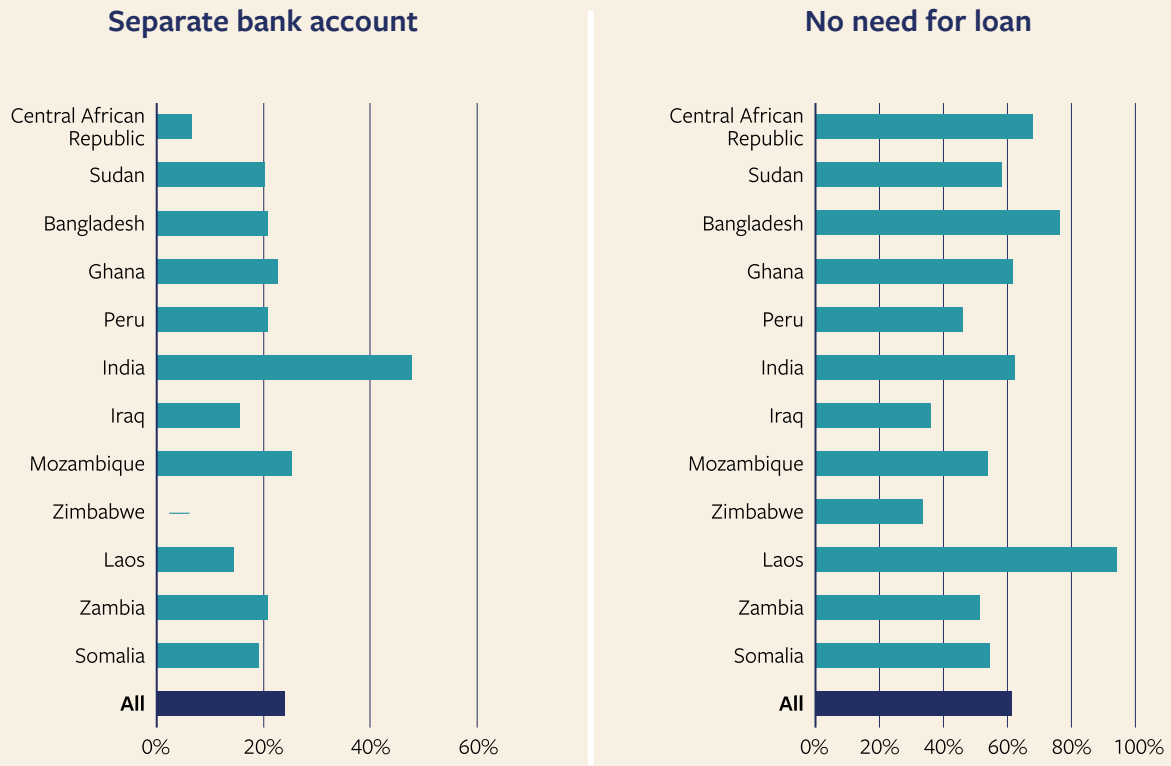
Figure 4 / Mobile money use by informal enterprises



Note: The survey was conducted between 2019 and 2023 in the main urban centres of the 13 countries and is representative at the urban centre level. Sample size by country varies based on the number and size of the urban centres surveyed, and ranges from 10,672 informal businesses in India to 361 in Laos.
Source: World Bank Enterprise Surveys: www.enterprisesurveys.org

However, only 20% of these enterprises on average maintain a separate bank account for their business, and 61% on average state that they do not require a loan (**Figure 5**). This suggests the wider benefits of digital payments, including access to credit and other financial products, are generally perceived to be less of a pressing concern for these enterprises.

Figure 5 / Use of business bank accounts and perceived need for loans among informal enterprises

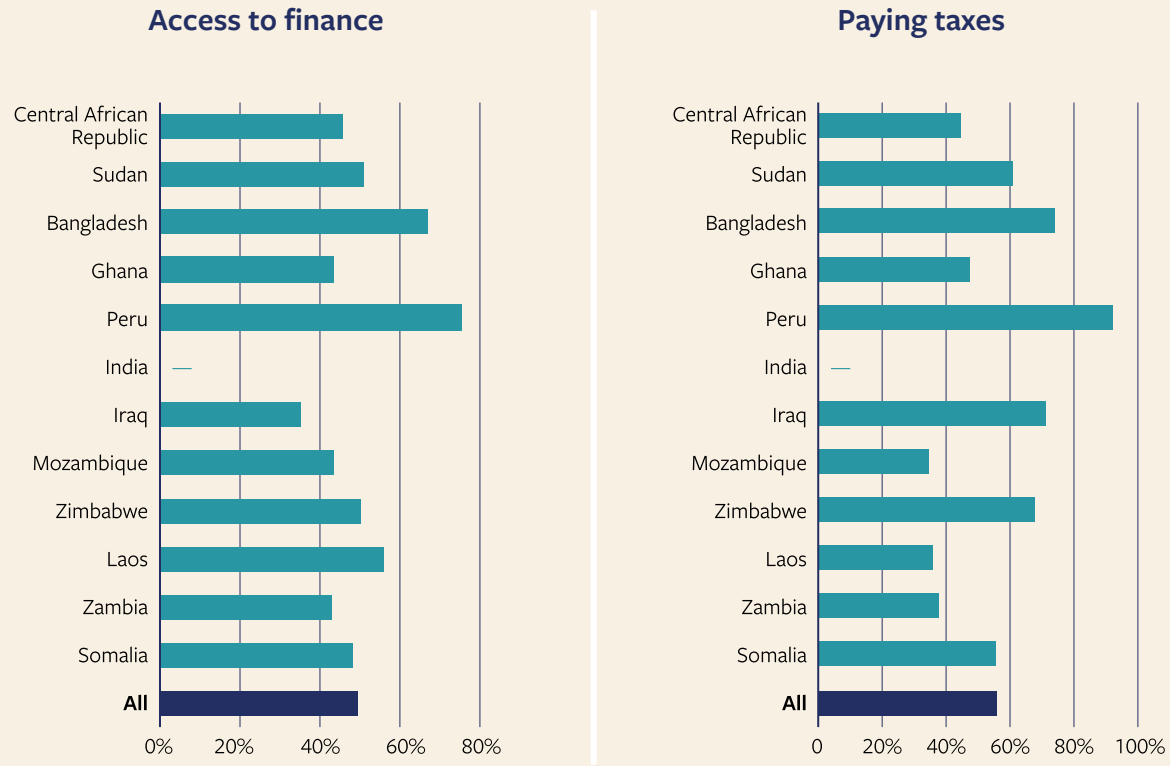


Note: The survey was conducted between 2019 and 2023 in the main urban centres of the 13 countries and is representative at the urban centre level. **Source**: World Bank Enterprise Surveys: www.enterprisesurveys.org

Maintaining a separate business bank account, which might facilitate easier access to credit, often requires formal registration. Indeed, 49% of enterprises on average cited access to finance as a reason why they would consider formally registering their business (**Figure 6**). However, a slightly higher proportion (56% on average) cited paying taxes as a reason for not formally registering their business.

Overall, these findings provide some further support for the pathways towards economic empowerment and inclusion outlined in the conceptual framework in Section 2, whereby digital payments represent a pathway towards increasing levels of formalisation, access to finance and business growth. Some informal enterprises appear to be on this pathway, raising questions about whether and how government initiatives may be able to support or accelerate their journey. However, the findings also suggest that a significant proportion of informal enterprises face a different set of incentives, and that governments should not overestimate the benefits of digital payments as a means for mobilising domestic revenue.

Figure 6 / Reasons informal enterprises gave for (not) formally registering their business



Note: The survey was conducted between 2019 and 2023 in the main urban centres of the 13 countries and is representative at the urban centre level. **Source**: World Bank Enterprise Surveys: www.enterprisesurveys.org

5 Findings from Colombia and South Africa

In Colombia and South Africa – the two in-depth cases explored during the project – there is a strong common perception that digital payments have the potential to help promote economic empowerment and inclusion for MSEs. Interviewees in both countries felt that digital payments could facilitate access to new customers, greater (physical) security, and better access to credit and other financial products. In some cases, examples were given of such benefits already being realised for digitally connected MSEs.

However, both cases also reveal challenges on the demand and supply sides that help explain why such uptake – and its benefits – are not straightforward. This includes confronting important issues around accessible, affordable and reliable connectivity and electricity. Further, MSE empowerment through digital payments was felt to be significantly threatened by uncertainty around additional costs (especially those resulting from associated formalisation and/or taxation requirements), cybersecurity and fraud threats, and mistrust about the extent to which financial services providers, banks and the government prioritise the interests of MSEs.

Both cases illustrate the importance of a collaborative approach across government, MSE representative organisations and other private sector actors in effectively realising the benefits of digital payments for the empowerment and inclusion of MSEs. In particular, several interviewees stressed a need for governments and large private sector actors to engage meaningfully with and consult MSE representative organisations and civil society actors, to ensure constructive policy design and in particular to help build trust, digital literacy and access for the most vulnerable MSEs.

5.1 Approaches to economic empowerment and inclusion of MSEs through digital payments

There are similarities and differences between the approaches to advancing empowerment and inclusion through digital payments in Colombia and South Africa – in terms both of how the government views the role of banks and other private sector actors and of how it coordinates across government and with the private sector.

South Africa's fast payments system is owned by a group of South African banks. Colombia, on the other hand, is shifting towards a more central bank-led approach for its payment infrastructure, hoping to create a more open, competitive and inclusive financial ecosystem. Some interviewees in South Africa criticised the country's approach, suggesting that relying exclusively on banks for digital payment infrastructure risked excluding the unbanked, and that transaction fees on digital payments deterred others from using digital payments. Interviewees in Colombia were generally enthusiastic about the country's central bank-led approach.

Despite these differing approaches to the orchestration of digital infrastructure for payments, interviewees in both countries noted the complementary roles of government and the private sector in supporting MSEs to use and realise the benefits of digital payments. Across the two countries, interviewees emphasised regulation development, financial service expansion and digital literacy as areas where consultation and cooperation between the public and private sectors was particularly needed.

In both countries, efforts to advance the empowerment and inclusion of MSEs through digital payments are found in multiple initiatives across government. In Colombia, initiatives to expand digital payment use are only lightly discussed in the national digital strategy but there is still evidence of cross-government coordination of relevant initiatives, including via the National Development Plan. South Africa does not have a national digital strategy but its central bank's Digital Payments Roadmap provides coordination across diverse areas of intervention, including women's empowerment, and digital skills and literacy. However, it is new, and evidence of its success is therefore limited.

5.2 Common perceptions of benefits and risks of digital payments for MSEs

In both countries, perceptions on the benefits and risks of digital payments for MSEs were largely in line with those outlined in the conceptual framework (in Section 2). Common points of emphasis in both countries were around the benefits of digital payments for physical security, and around mistrust of formal institutions and associated costs as major barriers to digital payment adoption.

5.2.1 Security

In both South Africa and Colombia, interviewees from MSE associations raised the importance of physical security as an important factor driving the shift from cash to digital payments. Yet they also raised concerns about the new forms of insecurity digital payments posed, and the absence of appropriate safeguards.

Violent crime is a concern in both countries. Minimising the amount of cash held was seen as helpful in reducing physical safety threats. In South Africa, most township businesses have experienced damage and/or theft (see FinMark Trust, 2021). Additional gender-based risks may make the physical safety benefits of digital payments even more key for women. In Colombia, MSEs' experiences with informal lenders – characterised by high interest rates, aggressive tactics and intimidation – provide incentives to look for new sources of credit, which digital payments could enable.

Nevertheless, interviews also highlighted trade-offs in terms of the security risks associated with digital payments, including cybersecurity risks but particularly fraud. The latter was emphasised more heavily by interviewees in Colombia, who reported issues with digital payments being diverted by schemes involving fake proof of transfer messages or substitution of vendor QR codes, as well as frustration around high levels of scam calls and messages.

Overall, while interviewees clearly articulated the security benefits of moving away from cash, they noted that these benefits had not yet been accompanied by the necessary regulatory and enforcement capabilities and digital literacy levels to prevent fraud or financial loss through digital channels.

5.2.2 Data and visibility

Governments and MSE representatives in both countries saw potential value in the data generated through digital payments. However, MSE representatives also raised concerns about the potential impacts of this increased visibility, given MSEs' mistrust of formal institutions (**see Box 3**).

On the positive side, many interviewees highlighted the potential to use digital payment data to assess MSEs' creditworthiness – and thereby to expand their access to finance. In Colombia, interviewees highlighted examples of digital footprints from mobile wallets being used to help MSEs access formal sources of credit, reducing reliance on predatory informal lenders. The links between digital payment use and broader financial service offers were expected to be further consolidated through ongoing developments in Open Finance regulations.[59] In South Africa, interviewees took a relatively positive view of the formalisation process, which could be initiated alongside the uptake of digital payments. They explained how formal business registration, maintenance of accurate financial records plus compliance with regulation could enable streamlined access to government grants and financial assistance programmes for MSEs. More generally, organisations working with or representing MSEs in both contexts noted the potential for businesses to strengthen their financial planning through more accurate accounting with digital payment records.

Box 3 / Countering mistrust

Trust emerged as a key issue in different ways within both cases.

Given the exceptionally high levels of socioeconomic inequality currently present in South Africa and Colombia, as well as deep historical divisions, mistrust of formal institutions was unsurprisingly evident in interviews in both countries. In both countries, MSE interviewees pointed to an assumption that banks were not concerned with microentrepreneurs' interests or financial inclusion – in large part because of the historic marginalisation of low-income populations from financial service provision. Meanwhile, given the high prevalence of informality in both counties, there was also a suspicion that government digital payment initiatives were driven entirely by taxation and formalisation pushes. This contributed to mistrust in the alignment of interests across the different groups.

Enabling uptake of digital payments requires concrete efforts to understand and address causes of mistrust. Sustained and meaningful consultation with MSEs and their representatives will be critical for understanding and building the necessary trust over time (see Section 5.3.3). In addition, tailored digital and financial literacy campaigns with trusted civil society and community actors could play an important role in helping MSE owners not only effectively use digital payments but also understand how, and in what contexts, they can expect wider benefits from such use. In South Africa, community-level trust was seen as foundational to MSEs' behaviours. For example, local shop-owners and community-based rotating savings groups known as *stokvels* were often seen as highly trusted sources of cash and savings.

Interviewees also noted substantial potential benefits for the government of the data created via digital payments, in allowing state agencies to better understand sectoral trends and to improve revenue collection. Data could also assist government to better support MSEs – by formulating better-informed policies and providing more efficient channels for disbursing financial support.

However, these benefits to both government and MSEs themselves hinge on the accuracy of data. Overreliance on data from digital transactions could also result in misperceptions of the scope and nature of MSE activity. For example, in both countries, MSE operations are frequently conducted through personal accounts rather than business accounts, and entrepreneurs often use multiple accounts. Especially in service industries, MSEs often use a combination of cash and digital payments, as the South African case of taxi and transport companies illustrates. In these cases, the data generated through digital payments needs to be interpreted and used carefully.

Finally, tensions around data visibility were a common concern, albeit more so in the case of Colombia. Virtually all interviewees noted that MSEs (which are generally informal) often held reservations about the greater visibility associated with digital payments because they feared this might subject them to additional taxation requirements or new costs tied to formalisation. The issue presented as more complex than MSEs simply wanting to obscure their income and governments wanting to raise more revenue. Rather, there was a lack of clarity and consensus as to if, when and how MSEs might become liable for taxes and costs associated with formalisation once they started generating electronic payment records.

5.2.3 Financial impacts

In both case studies, there were important nuances regarding the perceived financial impacts of digital payment adoption for different types of MSEs.

On the one hand, MSEs with good digital connectivity noted that digital payments could generate substantial time and cost savings. Several interviewees highlighted benefits of being able to transact digitally and thereby avoid the time, transport and opportunity costs of travelling to physical bank branches or agents for cash withdrawal or deposits. In South Africa, market vendors noted that digital payments sometimes facilitated more precise transactions and therefore improved sales revenue, where customers previously had under-paid because they lacked the correct change.

In contexts where customers increasingly avoid cash or prefer online shopping, offering digital payment or e-commerce options was associated with strengthening MSEs' revenue. In urban areas in South Africa, some MSEs were felt to have expanded their sales to a broader range of higher-income customers by accepting digital payments, such as artisans selling products in tourist hubs. In Colombia, it was felt that tapping into e-commerce and digital-only audiences could in some cases benefit entrepreneurs facing specific disadvantages, such as women who need to operate their business from home because of care-giving responsibilities, and Venezuelan migrants trying to sell products in areas where passing customers rarely hold cash.

Yet the direct and indirect costs associated with digital payments were also identified as a common barrier to their uptake among MSEs, including those from particularly vulnerable populations.

First, given that the smallest MSEs have the lowest incomes, they tend to be relatively worse hit both by the direct costs of transaction fees and by the indirect costs of fees associated with account ownership, POS and digital devices and internet access. The latter is a particular deterrent in South Africa, which is one of the most expensive countries for prepaid data. Meanwhile, in Colombia, it was emphasised that digital payment use had taken off among MSEs only with the introduction of mobile wallets that are free to own and have minimal transaction costs, owing to heavy subsidisation by the banks that run them. Use of traditional financial accounts and acceptance of debit and credit card payments remain very limited.

In addition, interviewees in both countries noted certain opportunity costs of digital payment uptake that might exacerbate disadvantages among already marginalised MSE owners. In Colombia, it was noted that, while e-commerce possibilities and digital account ownership can in some ways empower women, some may also lose autonomy over business earnings when these are received on a shared mobile phone. With the shift towards digital options, some older business owners were also felt to be at risk of losing out altogether or of becoming reliant on digitally connected intermediaries to access their income. In South Africa, specific concerns were raised about those who relied on small cash payments and tips (car guards, hawkers, etc.) seeing their incomes dry up when people no longer carried pocket change. Some interviewees also feared that the increasing adoption of digital payments could inadvertently take value out of local communities, particularly in underserved areas. These examples highlight the importance of understanding the nuanced needs and impacts of digitalisation shifts for different types of MSEs.

5.3 Enablers of MSE economic empowerment and inclusion through digital payments

Across the two case studies, three proposals emerged for enabling the empowerment and inclusion of MSEs through digital payments: a holistic approach that recognises overlapping demand- and supply-side constraints; recognition that some of these constraints are more binding than others for different types of MSEs in different geographies; and the importance of meaningful consultation and cooperation with MSEs and their representatives in the design, rollout and evaluation of policies.

5.3.1 A holistic approach

Both contexts highlighted the importance of a holistic approach for the empowerment and inclusion of MSEs through digital payments that identifies and addresses both demand- and supply-side constraints.

Digital payments require affordable, reliable and safe access to digital devices and associated infrastructure (including electricity and connectivity as a precursor to digital financial infrastructure). In South Africa, electricity supply is a problem, with frequent interruptions to electricity supply (referred to as 'loadshedding') disrupting the reliability of digital payment infrastructures that depend on connectivity. In Colombia also, lack of reliable connectivity was a hindrance to MSEs' digital payment use. Finally, particularly in Colombia, the empowering effects of digital payments were felt to be reduced by gaps in the regulatory architecture that exacerbated fraud and cybersecurity risks.

Meanwhile, on the demand side, interviewees flagged the digital and financial literacy of MSEs and their trust in formal institutions (**see Box 3**) as a constraint to MSEs' uptake of digital payments and realisation of their benefits. These, along with other demand- and supply-side constraints, combine to reduce the network effects of using digital payments over cash, particularly in the local communities in which many MSEs operate.

Recognition of constraints on both the demand and the supply side was evident in the strategies and initiatives of both governments, as well as the need to work on these with the private sector.

5.3.2 Responding to the unique needs of diverse MSEs

Both case studies highlighted that the demand- and supply-side constraints discussed above had varying impacts on different MSEs.

Geography affects the use – and subsequent benefits – of digital payments in both countries. In Colombia, reliable connectivity can be highly unequal between urban and rural areas, as well as within urban areas. In South Africa, there is greater use of digital payments in more affluent towns and urban centres, and cash is more prevalent in townships and rural areas, though these differences are also linked to business practices and other inequalities.

Within a given location, the usage and effects of digital payments also vary significantly by type of MSE (as indicated in Section 5.2.3 in the discussion on financial impacts). The South Africa case study identified three broad groups of MSEs – those operating in the formal economy, predominantly in urban centres, and using digital payments more frequently; 'hybrid' MSEs that operate in both the formal and the informal economy, often moving between locations, using both cash and digital payments, and relying on taxi drivers and retailers as cash-in/cash-out agents; and those operating in the informal economy, either in townships or in rural areas, and relying almost exclusively on cash. In Colombia, the payment preferences of MSEs' client bases were noted to be a key driver of MSE digital payment adoption, with those serving younger clients particularly likely to feel compelled to offer digital payment options.

These differences create a critical need for contextually specific policies that adopt multiple tailored approaches. They also highlight the importance of having a range of digital financial services that address the needs of specific types of MSE users. In both contexts, interviewees noted that there were constraints to market access that made it difficult for new financial service providers to scale innovative products aimed at specific MSE users.

In Colombia, regulatory adjustments over the past decade were felt to have played an important role in facilitating the emergence of low-cost mobile wallets – the main financial products used by MSEs and low-income individuals. Moreover, a desire to address outstanding market failures in the financial sector was felt to have contributed to the central bank's ongoing initiative to develop the standards and architecture for interoperability between different digital payment systems in the country. Meanwhile, in South Africa, continued reliance on cash among different underserved populations was felt to result from a lack of innovative and affordable digital payment solutions. This was itself perceived to reflect current regulations, such as the National Payments System (NPS) Act, that generally mandate digital payment services to be routed through banks, limiting competition and innovation from new fintech companies and non-bank service providers.

5.3.3 Consultations and cooperation with MSEs and their representatives

Interviewees in both contexts noted that larger enterprises in the formal economy had dominated businesses' inputs into policy-making processes. Consequently, despite the vast scale of MSEs' contributions to the economy and to employment, their preferences and concerns have traditionally been poorly integrated into public sector policies, as well as service development strategies. Interviewees from MSE associations and civil society in both countries therefore emphasised the need for both the government and the private sector to cooperate in more meaningful consultation processes with MSE associations as well as MSEs themselves on policy and strategy design, rollout and evaluation. In Colombia, interviewees flagged emerging efforts to support the development and policy-making influence of MSE representative bodies (such as the National Board of Shopkeepers and Business Owners in the Popular Economy) as valuable initiatives to learn from.

Interviewees also acknowledged the importance of understanding and responding to the needs of MSEs through better data collection and its use in policymaking. In Colombia, valuable longitudinal insights have emerged from the national statistics agency's Microenterprise Survey (Emicron), while the digital ministry also highlighted its recent efforts to invest in an E-Commerce Observatory for data collection and knowledge-sharing. In South Africa, interviewees noted that policymakers' understanding of MSEs' needs could be enhanced by strengthening data-sharing capabilities across national and municipal government agencies, developing mechanisms for the responsible use of existing financial service provider data and learning from the data collection approach and insights of the FinScope MSME survey.

6 Policy recommendations

Based on insights from across the project, the following five recommendations have emerged as key steps to enable digital payments to better support the economic empowerment and inclusion of MSEs, and to mitigate associated risks.

1. Identify where and how to expand access to digital payments for those MSEs ready and willing to undergo business transformation, and prioritise and sequence the most effective interventions

A consistent finding in this report – across the literature (Section 2), the data analysis (Section 4) and the case studies (Section 5) – is that, for certain MSEs (and their customers), the cost of digital payments, in their various forms, can be a barrier to their uptake. This applies to the costs of connectivity and devices, as well as transaction costs, account ownership fees and the cost of credit. Addressing this concern may require government intervention.[60]

Public sector interventions, however, will vary in their cost and time horizons. Given the fiscal constraints that many governments currently face, it is important to invest in capabilities to carry out cost–benefit analyses so that governments can be more transparent and confident about the public spending used to promote the uptake of digital payments among MSEs and their effects on competition. Further research could investigate the most binding constraints, so as to support the prioritisation of interventions and investment.

2. Strengthen the digital payment ecosystem, in partnership with the private sector and civil society, to maximise the benefits and minimise the risks for MSEs, both real and perceived

Beyond affordable uptake, promoting the economic empowerment and inclusion of MSEs through digital payments requires wider measures to ensure such enterprises truly benefit from the digital payment ecosystem – and are protected from its associated risks. This requires targeted support to increase MSEs' digital and financial literacy levels, through collaboration with civil society organisations, MSE associations and companies that have specialised in supporting MSEs' use of digital payment products. To ensure trust and effective protection in a constituency where mistrust in formal institutions is high, governments need to invest in capabilities to regulate the digital financial services market and subsequently enforce those regulations, including to promote fair competition, protect user privacy, facilitate responsible data-sharing, and strengthen controls for preventing, detecting and managing fraud and cybersecurity threats.

Research has also highlighted the importance of supporting digital payment ecosystems to develop in a way that enhances MSEs' access to the services they most value. In many contexts, a key priority may be to overcome historic constraints to MSEs' access to finance, by ensuring the availability of affordable financing options and by exploring context-appropriate ways to enable MSEs' digital payment histories to feed into credit assessments, where MSEs wish for such data to be shared.[61]

3. Meaningfully consult and engage with MSEs to improve policy design and delivery, and to build trust in digital payment initiatives

To inform public policy and spending decisions, governments need a better understanding of – and more consistent inputs from – the constituency they are trying to serve, and whose behaviour they are trying to influence. MSEs are a heterogenous group, and responses must more fully accommodate the diversity of their needs with respect to the benefits and risks associated with digital payments.

Understanding MSEs' diverse needs requires representative survey data on MSEs specifically (including informal enterprises), as well as user research with MSEs and their representatives. Considering the private sector often does the latter already for product development, there are significant opportunities for collaboration in this area. However, given the historic lack of representation of MSE concerns in policy-making discussions, there is also a critical need to strengthen the mechanisms for ongoing government consultation and dialogue with a broad range of MSE stakeholders. Such communication channels are vital, both for building trust with traditionally neglected enterprises and for ensuring their perspectives feed consistently and meaningfully into policy design, rollout and evaluation activities.

4. Invest in coordinating institutions and capabilities

While our analysis of national digital strategies (Section 3) shows that they often feature limited explicit attention to the economic empowerment and inclusion of MSEs through digital payments, the case studies (Section 5) provide evidence that this area may nevertheless be of interest for governments, often better captured in different initiatives across government, with coordination in some cases driven by a central institution with capable 'champions.'

Developing a leadership and coordination approach that is well tailored to the country's institutional context is key to capitalising on synergies and reducing frictions between the various agencies pursuing digital transformation, financial inclusion and MSE growth. Well-coordinated leadership may also be critical to encouraging investment from both the private sector and international financial institutions. Further research in this area could identify which institutional models and capabilities are most efficient in attracting investment.

5. Carefully craft and communicate policies on the relationship between digital payments, formalisation and taxation

A clear finding in both the literature (Section 2) and our case studies (Section 5) is that beneficial digital payment uptake in contexts with high informality may be significantly hindered by MSEs' concerns about the potential taxation and formalisation requirements.

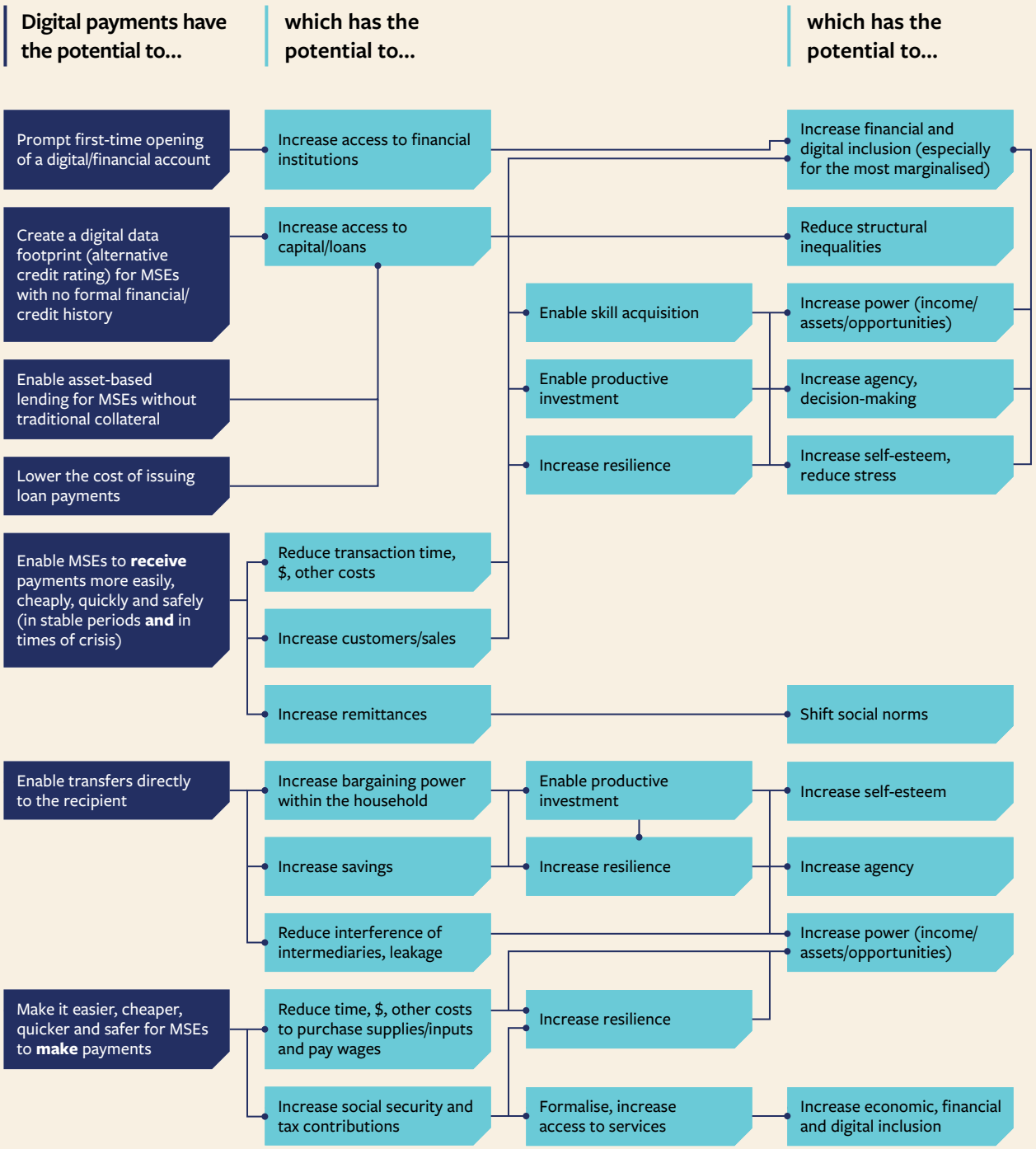
Addressing such concerns requires careful collaboration between relevant government agencies and MSE representatives to develop contextually informed and sensible policies regarding digital payment activity and the sequencing of both formalisation processes and taxation exemptions and/or requirements. Once developed, consistent and transparent communication of such policies will be essential to foster trust among MSEs, notably microbusinesses. This will require strong partnerships with MSE representatives, as well as collaboration with payment service providers, to ensure relevant information is accurately provided to their customers.

Appendix 1

Detailed visualisation of conceptual framework pathways

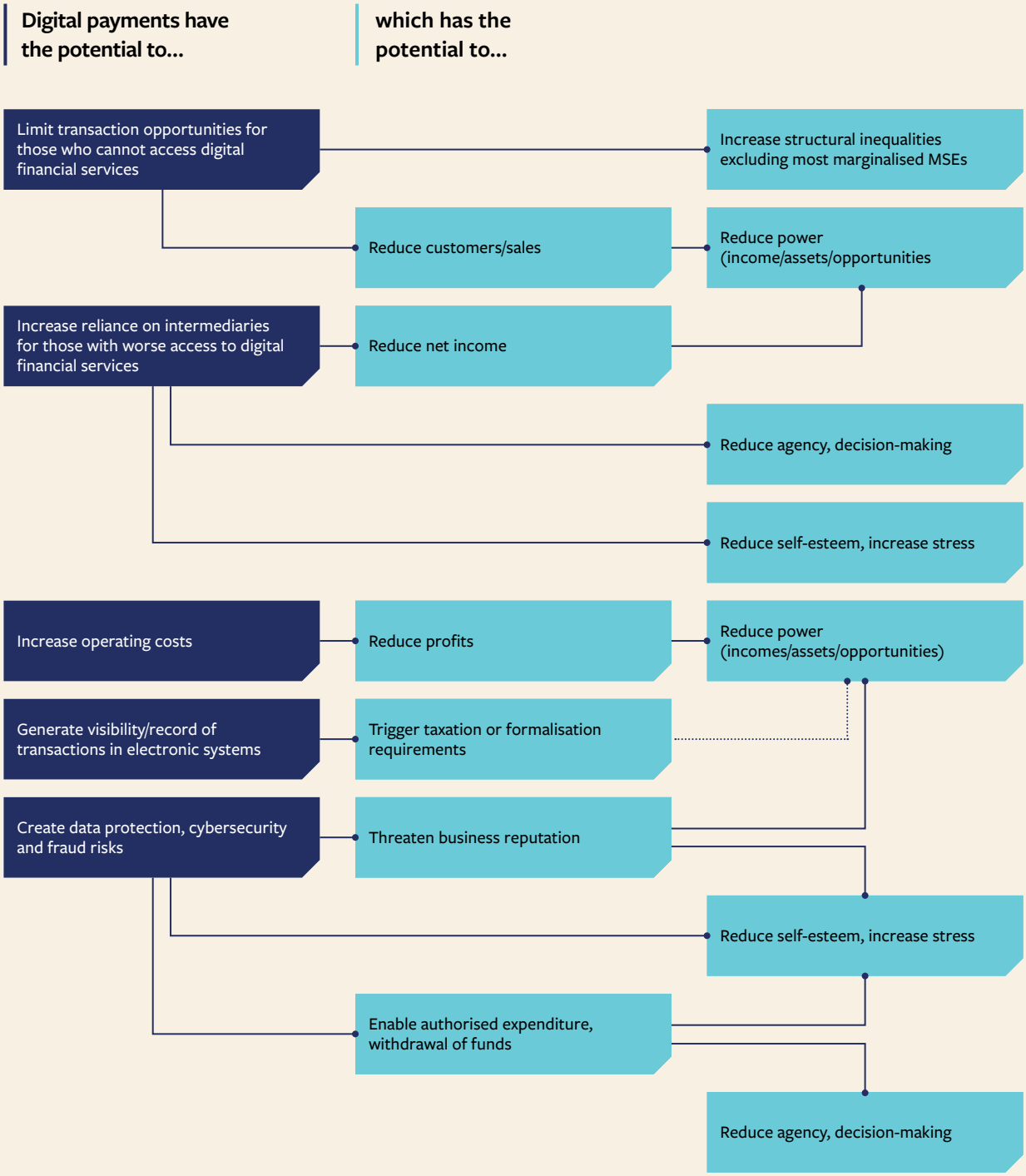
Figures 7 and 8 illustrate some of the ways in which the adoption of digital payments could promote or hinder the different dimensions of MSE economic empowerment and inclusion outlined in our definition of these terms (Section 1, Box 1). These diagrams have been developed based on a detailed background paper drafted in the inception phase of the project.

Figure 7 Potential benefits of digital payments for the economic empowerment and inclusion of MSEs



Source: Authors

Figure 8 Potential risks of digital payments for the economic empowerment and inclusion of MSEs



Source: Authors

Appendix 2

Digital payments and the economic empowerment and inclusion of micro and small enterprises (MSEs): Methodological details

This report is based on mixed methods research conducted between March and July 2024. This included the following research activities:

Targeted literature review

A targeted literature review of academic and grey literature was conducted in March 2024, exploring the impacts of digital payments for MSEs, with the aim of developing a conceptual framework that outlines the potential pathways between digital payments and MSE economic empowerment and inclusion outcomes. The review was not designed to be exhaustive, but to identify the main pathways highlighted in existing literature, using key search terms relating to digital payments/digital financial services; economic empowerment/economic inclusion/ financial inclusion; and microenterprises/SMEs/ micro and small businesses/self-employed/ entrepreneurs. As noted in the report, the review did not aim to indicate the weight of empirical evidence for different benefits or risks. Instead it aimed to document the diversity of impacts that digital payments could potentially generate, and the pathways through which these might occur.

Text analysis of national digital transformation strategies

Text analysis of 109 national digital transformation strategies was completed between March-June 2024 using Atlas.ti qualitative research software. The World Bank GovTech Dataset from March 2023 was used to identify existing whole-of-government digital transformation strategies. We completed the text analysis of the identified strategies, focusing on discussion of terms relating to digital payments; micro and small businesses, start-ups, etc; and/or inclusion and/ or empowerment. We tested and used a range of terms for each of the areas, and conducted searches in 4 languages (English, French, Spanish and Portuguese). To ensure a global scope, we included analysis of countries with either draft/ updating (40 strategies) or final (69 strategies) versions of a strategy.

Survey data analysis

Analysis of available survey data on MSEs and their use of digital payments was conducted between June – August 2024. We started by documenting the main publicly available demand side and supply side datasets relating to formal/informal enterprises and digital payment use. These were then assessed to determine the units of analysis, topics and countries covered in the dataset. Given time constraints, two main datasets were selected for further analysis:

1. World Bank Enterprise Surveys conducted in 56 countries since 2021 (i.e. since the onset of the Covid-19 pandemic) containing nationally representative data on formal enterprises. Within this dataset, we focused specifically on those enterprises identified as 'small businesses' (5–19 employees) in the formal sector.

2. Recent World Bank surveys conducted between 2019 and 2023 with informal enterprises operating in the main urban centres of 12 lower income countries: Bangladesh, Central African Republic, Ghana, India, Iraq, Laos, Mozambique, Peru, Somalia, Sudan, Zambia, Zimbabwe. The sample size per country varies based on the number and size of the urban centres surveyed, and ranges from 10,672 informal businesses in India, to 361 in Laos. The data is representative at the level of the urban centres surveyed in each country.

In-depth country case studies

Primary research was conducted for two in-depth country case studies, Colombia and South Africa, to explore experiences of government approaches to digital payments for MSEs in practice. Case study research was based on a combination of interviews with stakeholders from government, the private sector, international development agencies, civil society and MSE associations, as well as a review of relevant government documents and literature. We conducted 20 interviews in Colombia and 21 interviews in South Africa in May and June 2024. Further details and acknowledgement of interview participants can be found in the Colombia and South Africa case study write-ups.

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Endnotes

1 Throughout this report, we use the term 'lower-income countries' to refer to low-income countries, lower-middle-income countries and upper-middle-income countries, per the World Bank's country income classifications.

2 The proportion of adults in lower-income countries making or receiving digital payments increased from 35% in 2014 to 57% in 2021, in part thanks to accelerated adoption during the Covid-19 pandemic and the response (Demirgüç-Kunt et al., 2022)

3 Excluding China, only 20% of adults in lower-income countries have made a merchant payment using a card, mobile phone or the internet (Demirgüç-Kunt et al., 2022).

4 Financial inclusion is 'a state in which all working-age adults have effective access to the following financial services provided by formal institutions: credit, savings (defined broadly to include transaction accounts), payments, insurance, and investments.... "Effective access" involves convenient and responsible delivery of services that are responsive to the needs of financially excluded and underserved customers, at a cost affordable to the customers and sustainable for the providers. The demonstration of effective access is usage' (GPFI, 2016).

5 Financial inclusion includes 'access to and regular usage of quality financial services through payment infrastructures to manage cash flows and mitigate shocks. Such financial services are delivered by formal providers through a range of services with dignity and fairness' (AFI, 2022).

6 In low- and middle-income countries, more than half (57%) of adults with a financial account first opened it to receive a wage payment or transfer from the government, typically through an electronic bank or mobile money transfer (Demirgüç-Kunt et al., 2022).

7 For example, in Brazil, the Auxilio Emergencial programme aimed to disburse digital payments to vulnerable households, individual microentrepreneurs, and self-employed and unemployed workers not receiving other federal benefits, supporting close to 70 million people (including 5 million micro-businesses). A full 40% of recipients reportedly had no account prior (Gentilini et al., 2021; Teima et al., 2021).

8 In low- and middle-income countries, 70% of those who received government transfers or pension payments into an account reported using the account to make a digital payment, and around half had used it to store money (Demirgüç-Kunt et al., 2022).

9 Because many MSEs do not produce formal financial statements and have not previously interacted with financial institutions, they lack formal financial and credit histories, making it difficult for lenders to evaluate their creditworthiness (Teima et al., 2022). Such challenges are exacerbated for business owners who are women, low-income, less educated or living in rural areas, since they are least likely to have had previous access to formal financial services (Demirgüç-Kunt et al., 2022).

10 For example, Kopo Kopo, a Kenya-based fintech company, provided loans via mobile money to over 40,000 entrepreneurs in its first eight years of operation, based on its electronic transaction history (Theuri, 2020).

11 According to a recent World Bank report, 80% of collateralised loans require real property, which entrepreneurs and smaller businesses often lack (Teima et al., 2022). Again, this barrier tends to be exacerbated for women, as they are less likely to own houses or land in their own name – and may even be legally barred from ownership in some contexts (Campos et al., 2019).

12 Historically, the relatively low value of loans to smaller enterprises, together with the higher amount of effort required to assess potential clients, issue loans and monitor repayments, has made MSE lending largely unprofitable, even when the MSE would qualify for a loan (Teima et al., 2022).

13 For example, in a recent Consultative Group to Assist the Poor (CGAP) survey of platform sellers/workers in India, Indonesia, Kenya, Nigeria and South Africa, 45% believed they did not have the capital to improve their skills and thus their income (Murthy and Deshpande, 2022). A study of 2 million vendors trading on Alibaba's online retail platform found that access to digital credit boosted sales growth, transaction growth and customer satisfaction, with particularly strong effects for vendors with more sparse credit information, with less collateral and in regions with weaker debt contract enforceability (Hau et al., 2021). That said, the evidence to date shows that the specific loan design and the recipient group are important for determining whether microloans generate positive impacts (see J-PAL, 2023, for a recent summary of the evidence on this topic).

14 However, it should also be noted that over-indebtedness can have the reverse effects, leading to reduced social status, increased stress and worse mental health (Schicks and Rosenberg, 2011).

15 For example, in Malawi, mobile money services enabled women entrepreneurs to save on transport costs (Malanga and Banda, 2021). In the Philippines, (primarily female) microfinance members spent 70% less time on withdrawals with the adoption of mobile banking (Harigaya, 2020). In 343 businesses surveyed in Senegal, 82% of respondents said they felt safer with digital wages because they did not have to travel with their pay checks (BTCA, 2021).

16 At a national level, countries with better digital infrastructure, financial inclusion rates, mobile coverage, data and experience with digital social protection payments were able to disburse relief more quickly to populations in need (Beazley et al., 2021; World Bank, 2022b).

17 For example, some studies find digital payments have lowered the cost of energy access, through digital bill payments, smart meters and pre-paid energy models (Waldron and Sotirou, 2018). In Jordan, when three garment companies shifted to pay wages digitally, the time taken to make the payments fell by 66% for direct deposits to bank accounts and by 70% for direct payments to e-wallets (Abu Qaoud et al., 2021).

18 In Rwanda, electronic billing machines cut the time required for VAT filing from 45 hours to 5 hours between 2013 and 2018 (BTCA, 2020). In another Rwandan initiative, less than four years after its launch, a mobile money-based system for pension contributions had expanded to just over one-quarter of working-age adults, 87% of whom worked in the informal sector (Guven and Jain, 2023). In Mexico, digitising tax payments was associated with an increase in tax revenue and social security contributions of about 95% between 2010 and 2016 (BTCA, 2020, in UNSGSA et al., 2023).

19 During Mexico's drive to digitise tax payments, larger businesses began to require smaller suppliers to use e-invoices, resulting in the formalisation of over 4 million micro-enterprises (BTCA, 2020, in UNSGSA et al., 2023).

20 Covid-19 provides a clear example, whereby registered businesses were in a better position to access government relief schemes, including grants, postponements in loan repayment schedules, subsidies and deferred or reduced tax and social security contributions (World Bank and IFC, 2022). That said, formalising businesses is not always associated with improved business performance or access to finance (see, for example, studies cited in Campos et al., 2019).

21 According to a recent Visa–60 Decibels survey of 753 Mexican MSEs that have adopted digital payments, 72% of respondents confirmed a link between payment digitalisation and increased customer spending, and 75% reported higher revenues (Visa, 2021). Grupo Bimbo, one of the world's largest baking companies, worked with small retailers to help them adopt digital payments and found that sales revenue increased by up to 30% for participating merchants (BTCA, 2018). See also Roest and Bin-Humam (2021) and Taghiyeva (2023).

22 Suri and Jack (2016). One study estimated that a 5 percentage point reduction in the cost of remittances could allow recipients in emerging economies to benefit from an additional $20 billion every year (Ratha, 2015). Another study, in Tanzania, found that mobile money users were more likely than non-users to receive remittances, and that the amount of remittances rose for mobile money users after a rainfall shock – replacing two-thirds of the losses they incurred (Riley, 2018).

23 Remittance receipt is particularly important in localities where external injections of funds are needed to increase people's purchasing power; for example, more than half of the world's remittances are sent to rural areas, which host 75% of people living in poverty (IFAD, 2024).

24 For example, there is evidence of direct links between remittance payments and expenditure on productive investments, reductions in poverty, increases in food security and resilience to shocks (Suri and Jack, 2016; Riley, 2018; Lee et al., 2021; UNSGSA et al., 2023).

25 In a study of female microentrepreneurs in Uganda, women who had received a loan into their mobile money account had 11% higher levels of business capital and 15% higher business profits after eight months, compared with a control group that had received their loan as cash. Impacts were greatest for women who experienced pressure to share money with others in the household at baseline (Riley, 2022). In Bangladesh, receiving wages directly into their account enabled garment workers to increase savings and their ability to meet unexpected expenses (HERproject, 2020 and Breza et al., 2020, cited in UNSGSA et al. 2023).

26 In Kenya, when mobile savings accounts were offered to male and female entrepreneurs, women used them far more than men, and increased their business investment by 38% compared with the control group (Dupas and Robinson, 2013, in UNSGSA et al., 2023). In another example, in Malawi, providing access to business bank accounts and supporting formalisation were shown to significantly increase women's usage of business bank accounts and insurance, and to better separate household and business funds (Campos et al., 2015). In Tanzania, providing women entrepreneurs with mobile savings accounts did not increase investment or profits for their original business but supported the creation of profitable secondary businesses and improved women's subjective well-being (Bastian et al., 2018).

27 For example, in rural India, storing income in a digital bank account instead of keeping cash at home was found to increase household savings by 131% within three months (Somville and Vandewalle, 2018).

28 In one estimate, digitalisation of social welfare payments in India is thought to have helped save the state $24.4 billion by removing duplicate beneficiaries, cutting transaction costs and plugging leakages in cash delivery system (Jain et al., 2021).

29 For example, in Andhra Pradesh, India, the government has been praised for its use of 'real-time' monitoring of electronic administrative data on digital public service delivery, combined with high-frequency phone surveys, to continually improve service performance (Gelb et al., 2019).

30 In South Asia, for instance, the cost of an internet-enabled handset was as high as 56% of women's average monthly income in 2021, compared with 19% of men's (Taghiyeva, 2023).

31 Around 400 million people globally still lack mobile broadband coverage, generally in the most remote and socioeconomically deprived areas. Even where coverage exists, the cost of energy bills and data plans is disproportionately higher for smaller businesses with lower income levels (Taghiyeva, 2023).

32 In Indonesia, 35% of women who own a phone and are aware of mobile money do not have an account because they lack access to agents. This in part reflects the low number of female mobile money agents, with whom women may prefer to interact (Taghiyeva, 2023).

33 In low- and middle-income countries, 44% of women lack adequate ID, compared with 28% of men (Taghiyeva, 2023).

34 Research in India, Indonesia, Colombia and Nigeria found that women MSME owners were more likely than their male counterparts to avoid using mobile money, because they were concerned about what to do if they encountered problems or questions during a transaction (Modi, 2022).

35 In Ghana, for example, women entrepreneurs are 7 percentage points more likely to rely on assistance from family members and 5 percentage points more likely to use an agent's help compared with their male peers (Lowe et al., 2022).

36 Formalisation has been linked with many potential benefits, and subjecting MSEs to formal tax regimes does not necessarily increase their net costs (ILO, 2021). However, this will depend on the specifics of the taxation regime (Mas-Montserrat et al., 2024). For example, there is recent evidence that alternative approaches targeting MSEs, for example certain presumptive or simplified tax regimes (which levy taxes on a presumed tax base based on an indirect approximation of taxable income), can actually heighten inequalities (Komatsu, 2024).

37 See Klapper et al. (2019) for a discussion of the relationship between digital financial services, formalisation and taxation.

38 Panama's Agenda Digital Estratégica 2023, p. 24 (translated).

39 Digital Ethiopia 2025, p. 51.

40 The Gambia's National Digital Economy Masterplan 2024–2034, p. 44 (emphasis in the original).

41 The strategies of Djibouti, Ethiopia, Kosovo, Mauritania, Moldova, Montenegro, Rwanda, Samoa and Zimbabwe all make reference to the diaspora as a potential source of investment – in terms of both financing and human capital development.

42 The Gambia's National Digital Economy Masterplan 2024–2034, p. 46.

43 Sierra Leone Digital Development Policy 2021, p. 48.

44 Lesotho's National Digital Transformation Strategy 2021, pp. 15, 39.

45 Bosnia and Herzegovina, Estonia, Ethiopia, The Gambia, Lesotho, Malta, Somalia.

46 Lesotho's National Digital Transformation Strategy 2021, p. 17.

47 Nevertheless, the strategy notes that, 'since the Strategy for the Development of Micro, Small and Medium Enterprises expires at the end of 2022, it is necessary to monitor both the results of these activities and future implementation either through one of the sectoral strategies or through the next action plans of the Digital Transformation Strategy' (Montenegro Digital Transformation Strategy 2022, p. 106).

48 Kiribati Digital Government Masterplan 2021, p. 34.

49 Argentina, Austria, Belize, Bolivia, Bosnia and Herzegovina, Cabo Verde, Cambodia, Canada, Croatia, Czechia, Denmark, Dominican Republic, Finland, Guatemala, Kosovo, Lesotho, Panama, Papua New Guinea, Portugal, Romania, Sierra Leone, Sri Lanka, Timor-Leste, Vanuatu, Venezuela and Zimbabwe.

50 Dominican Republic's Agenda Digital 2030, pp. 87–89.

51 Lesotho's National Digital Transformation Strategy 2021, p. 40.

52 Croatia, Lesotho, Montenegro, Papua New Guinea and Timor-Leste.

53 The Gambia's National Digital Economy Masterplan 2024–2034, pp. 32, 33.

54 The correlation coefficient is 0.49.

55 The correlation coefficient is 0.5.

56 The correlation coefficient is 0.6.

57 See Organisation for Economic Co-operation and Development (OECD) (2022) for a comparison of SME interest rates across OECD countries of varying income levels.

58 See Islam and Rodriguez Meza (2023) for discussion.

59 Open Finance refers to the sharing of consumer data by financial service providers with other financial or third-party service providers, with the customer's consent (Medine and Plaitakis, 2023).

60 For example, making public investments in infrastructure to expand access to the internet and telecommunications in underserved areas and subsidising financial products to support their uptake can have wider benefits for the economy and society.

61 Some countries are starting to develop frameworks for Open Finance, through various different approaches; for example, eight countries in the OECD had established a data-sharing framework for Open Finance as of 2022 (OECD, 2023). However, developments are still at an early stage, meaning it is too soon to draw robust conclusions about their effects and effectiveness. Given both the opportunities and the risks and implementation challenges involved, careful consideration is needed of the country's readiness to develop well-regulated and inclusive data-sharing architecture based on meaningful customer consent. See, for example, Medine and Plaitakis (2023) and OECD (2023) for further discussion.

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