



THE PROMISE OF FINTECH FOR MICRO AND SMALL ENTERPRISES

An investigation into the potential of technology-enabled business models to provide underserved micro and small enterprises (MSEs) with responsible financial services



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About this report

This report aims to bring some order to the chaotic landscape of fintech companies that serve micro and small enterprises (MSEs). Our goal is to help readers identify and understand the innovative firms and technologies that may define the MSE finance ecosystem in the coming years.

For the purposes of this report, we define MSEs as companies with fewer than 20 employees.

INTENDED AUDIENCE

- **Fintech and investment professionals** will find value in the consolidated view and explanations of emerging business models in the MSE sector.
- **General financial inclusion audiences** will benefit from the report as a primer to better understand implications of fintech on financial inclusion for MSEs.

Over the past two years, CGAP has engaged in a global research effort to identify companies that are implementing technology-enabled innovations to provide MSEs with financial services. Our multi-method research includes dozens of interviews with fintech investors and companies, a literature review, and in-country studies of MSE finance customers and providers in India, Kenya, Nigeria, and Peru.

The report identifies the emerging business models that we believe show the greatest potential to address the MSE finance gap. Although CGAP does not endorse the companies spotlighted, we believe they exemplify the types of innovative technologies and business models that hold great promise for MSE finance. While not intended to be fully comprehensive, the report highlights key trends and business models that are important to understanding the evolution of the MSE finance landscape.

Table of contents

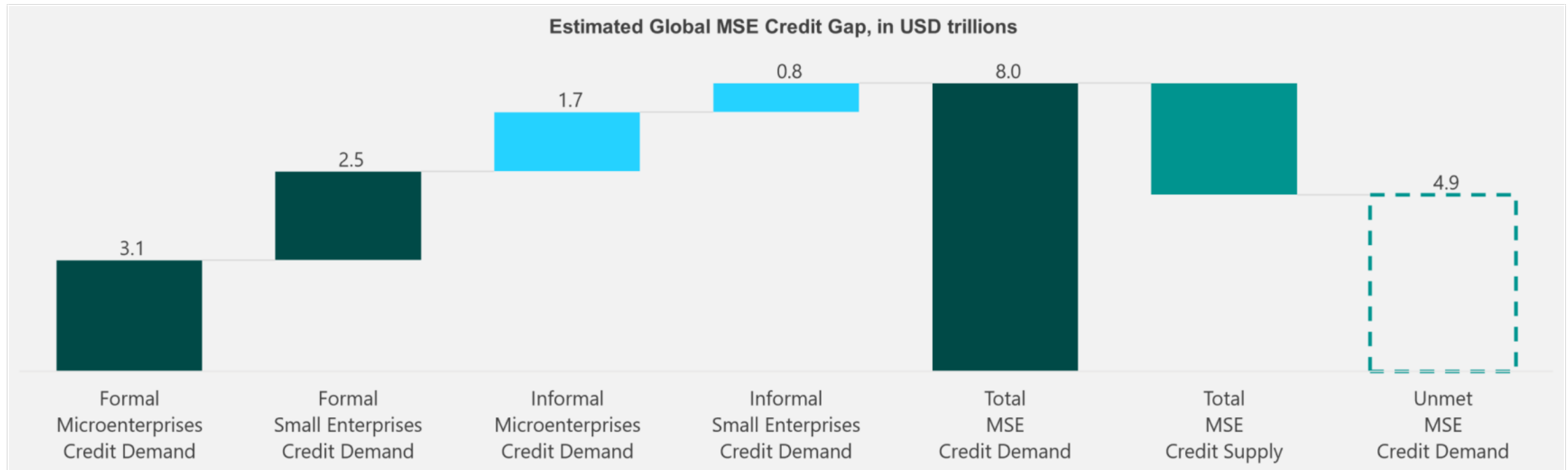
- 1 Executive Summary 5**
- 2 Introduction 10**
- 3 Pure Play Financial Services Business Models 22**
 - 3A. Data-driven Finance 23
 - 3B. Marketplace Finance 32
 - 3C. Digital Banking 37
- 4 Embedded Finance 44**
- 5 Conclusion 51**
- Appendix..... 57**

1. EXECUTIVE SUMMARY

Low-income households often rely on MSEs for their livelihoods, yet the MSE credit gap remains a persistent ~USD 4.9 trillion

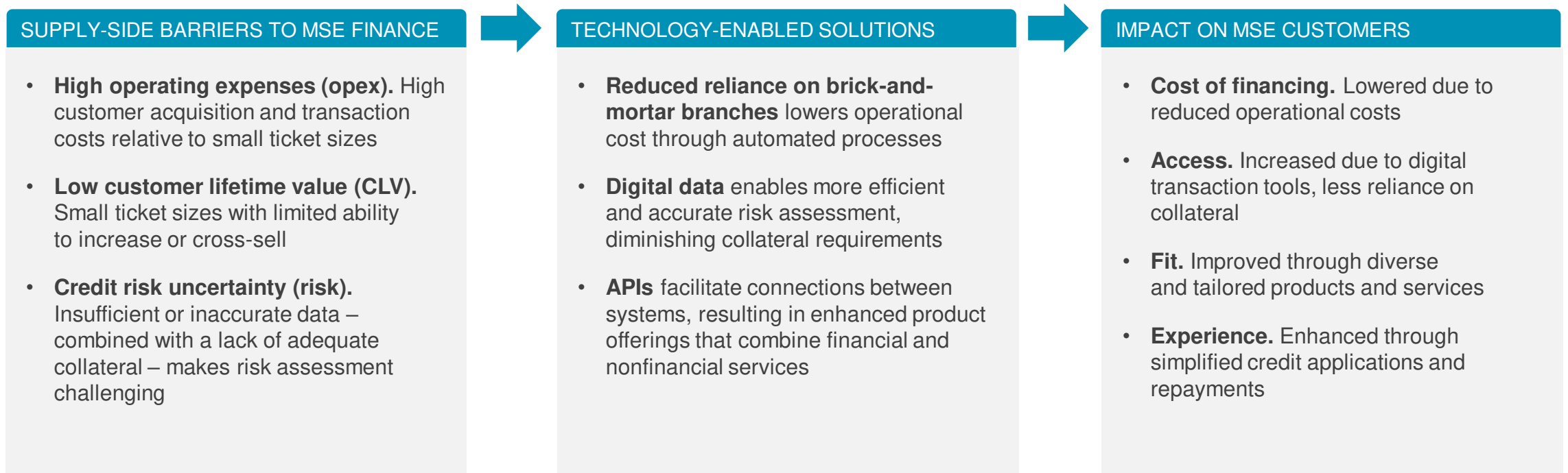
An estimated 487 million formal and informal MSEs operate around the globe. These businesses are critical to job creation and livelihoods, particularly for low-income populations.

Access to credit and other financial services is essential for MSE growth and, consequently, to the livelihoods of poor people. Despite decades of efforts to expand MSE finance, the MSE credit gap remains an estimated USD 4.9 trillion.



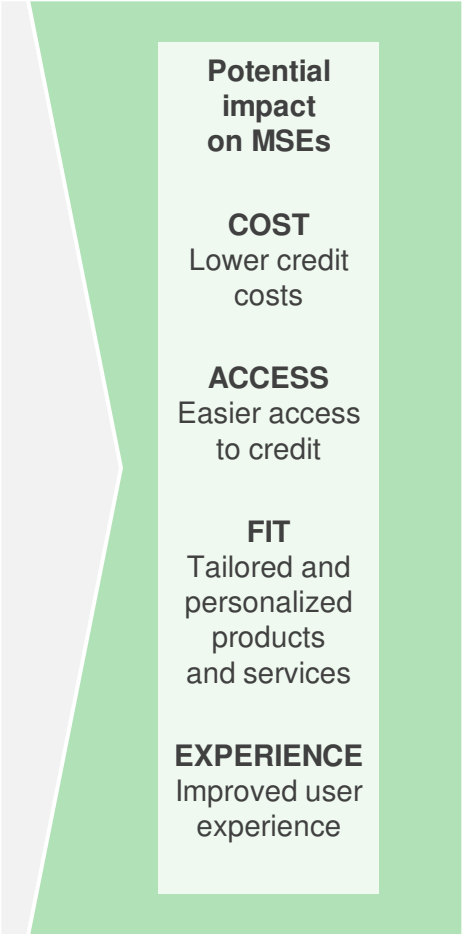
Sources: Dalberg (2019), IFC (2017)

Newly emerging technologies show promise in overcoming traditional barriers to providing MSEs with needed financing



CGAP identified four technology-enabled business models with high potential to reach underserved MSEs through improved services

PURE PLAY FINANCIAL SERVICES			EMBEDDED FINANCE
Data-driven Finance	Marketplace Finance	Digital Banking	Embedded Finance
Description			
Uses digital data trails, digital tools, and new data generation methods to improve MSE lending	Marketplace finance directly connect investors with borrowers (aka peer-to-peer lenders, platform lenders, crowdfunders)	Deposit-taking institutions with a bank license that deliver banking services through digital channels rather than physical branches (aka neo banks, challenger banks, digital banks, fintech banks)	Seamlessly integrates financial services (e.g., working capital lending) with nonfinancial services (e.g., inventory management)
Advantages over traditional MSE finance			
Business data (e.g., digital payments data, ordering data) are a proxy for cash flows and analyzed to improve credit decisioning. Combined with other digital tools, digital Data-driven Finance improves risk management, reduces costs, and accelerates underwriting.	Using data analytics to generate risk profiles allows investors to make informed decisions about lending directly to borrowers. By disintermediating traditional lenders (e.g., banks, non-bank financial institutions), marketplace financiers can generate superior investor returns while offering better borrower terms.	Reliance on alternatives to bank branches (e.g., mobile phones, agents) reduces costs and increases flexibility. Results in lower costs, improved user experience, and better and more transparent information about products and services.	Driven in part by the modularization of financial services, creates efficiencies in delivering integrated financial and nonfinancial product bundles. Results in improved economies of scope and scale, as well as financial services more tailored to business needs.



Proving and realizing the full potential of tech-enabled business models requires the coordinated effort of diverse stakeholders

Although CGAP's preliminary analysis shows that tech-enabled business models have strong potential to provide excluded MSEs with responsible financial services at scale, these models have yet to fully prove their ability to do so. These early-stage fintechs mostly operate via nascent and rapidly developing evolving models.

These business models continue to face major obstacles to success. Some are related to systemic issues (e.g., digital financial services [DFS] infrastructure, regulation, gender norms) while others are specific to individual models (e.g., access to reliable alternative data that can act as proxy for cash flows).

Tech-enabled business models may also create a digital divide in MSE finance by increasing access among those with internet/smartphone access and digital literacy while leaving others behind.

To effectively address challenges and help these models achieve the potential to responsibly address the MSE finance gap requires a systematic approach and the contributions of a wide variety of actors, including financial services providers (FSPs) themselves, donors, investors, policymakers, and regulators.



Photo by Febri Kristiawan

2. INTRODUCTION

This section covers:

- MSEs' critical role in supporting low-income livelihoods
- The MSE finance gap
- Sources of innovation in MSE finance
- Two analytical frameworks to assess emerging MSE finance business models

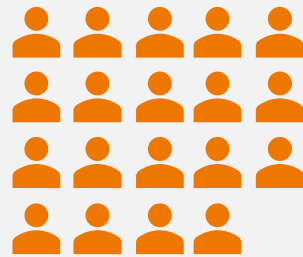
MSEs are critical to the livelihoods of low-income populations around the world, and many are informal businesses

70%

Estimated percentage of the workforce in developing countries that operates in the informal economy through self-employment or by working in enterprises that are not legally registered businesses.

Source: UNDESA

50%



Microenterprises with 5–19 employees create an estimated 50 percent or more of total net employment in developing economies, making them critical to building sustainable livelihoods.

Source: Ayyagari, Demirgüç-Kunt, and Maksimovic (2014)



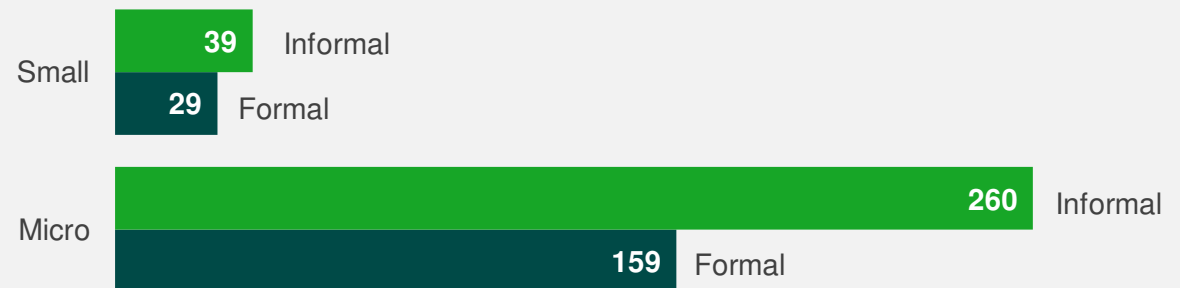
Source: OECD (2016)

The informal economy provides entrepreneurial opportunities. It is an important vector for economic and social participation that allows marginalized groups (e.g., young people, women, seniors, migrants, ethnic minorities, disabled people) to participate in the economy.

An estimated 487 million formal and informal MSEs operate in emerging markets. The highest concentrations are in Africa and Asia.

Source: Kumaraswamy (2021)

Global number of MSE businesses by type (in millions)



MSEs are often created out of necessity and face several obstacles to success, especially access to finance

A growing body of literature highlights the extent to which MSEs are credit constrained across developing countries, including the importance of relieving constraint to achieve higher growth.

Most MSEs are created out of necessity and remain small throughout their lifetime

People with low incomes often engage in entrepreneurship:

- Because they cannot find or need to supplement low paying and unreliable wage employment
- To sustain and smooth incomes until they find wage employment
- To cope with health shocks that prevent them from seeking wage employment
- To finance, supplement, or smooth agricultural income

MSEs face several interconnected binding constraints that inhibit productivity, profitability, and expansion

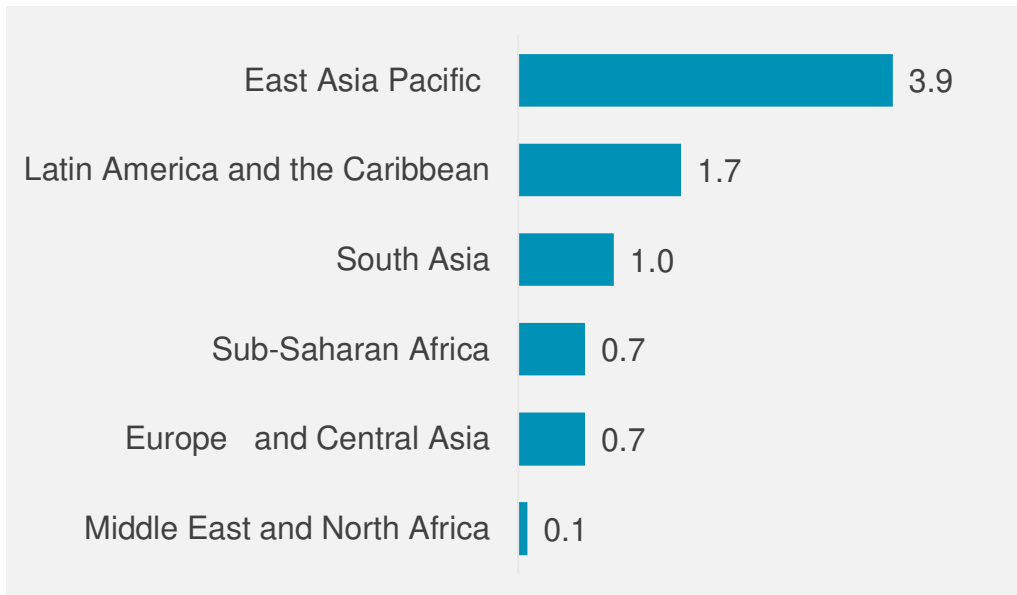
Constraints include:

- Limited access to finance
- Lack of a growth mindset
- A shortage of skilled labor
- Limited advisory services and mentoring
- Infrastructure constraints

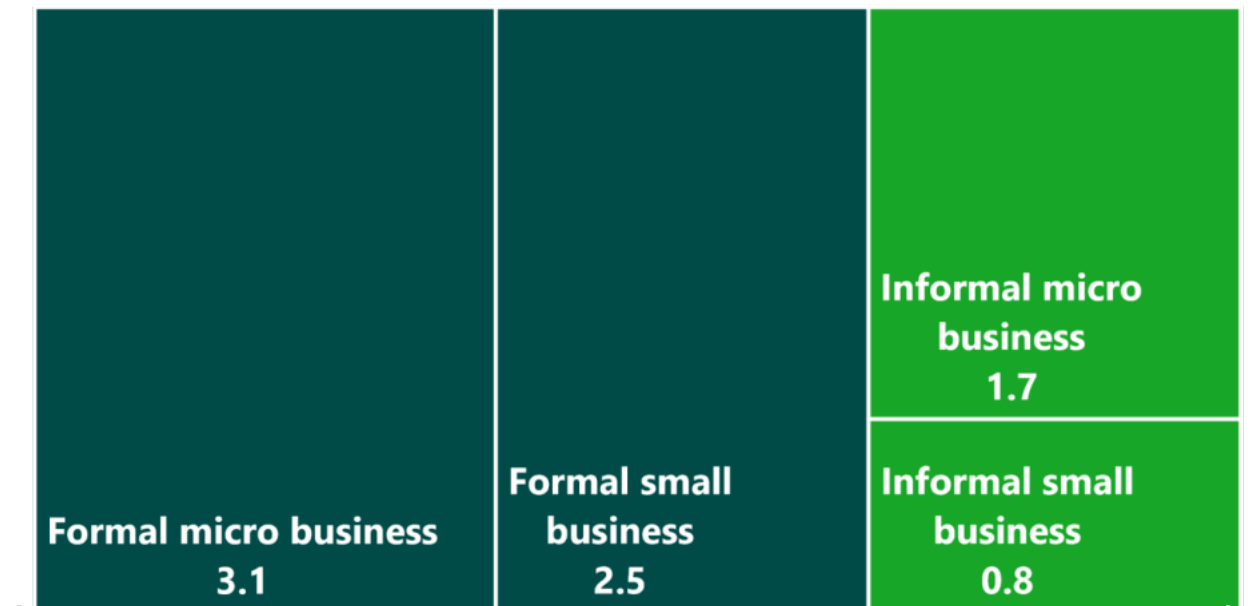
Demand for credit among MSEs

MSEs in emerging markets create an estimated USD 8 trillion in credit demand; informal sector MSEs make up 30 percent of that demand

Credit demand by region, in USD trillions



Credit demand by type of business, in USD trillions



Total credit demand: USD 8 trillion

Note: It is assumed that 17 percent of total credit supply reported in the micro, small, and medium enterprise (MSME) finance gap is for medium enterprises while the remainder flows to small and micro businesses in emerging markets. See [Appendix](#) for additional assumptions.

Sources: IFC (2017), Dalberg (2019)

Increased financial services digitization lays the foundation for newly emerging tech-enabled business models

Advances in technology have disrupted the entire financial services industry. These technologies include mobile connectivity, big data analytics, artificial intelligence (AI), machine learning (ML), and application programming interfaces (APIs), among others.

These technological advances enable a more modular financial services market. Financial services no longer need to be offered by single entities as new technologies drive growing disaggregation among ecosystem players.

Banking is already being deconstructed and reimaged, driving specialization for both front- and back-end services. Modularization also helps to open up entirely new business model choices and partnership opportunities. This diversifies the financial sector and grows the end consumer's set of choices while increasing competition (i.e., lowering costs).

Modularization also drives the embedded finance trend — the seamless and full integration of financial services (e.g., payments, lending, insurance) with nonfinancial services (e.g., restocking, procurement, logistics).

Key banking elements no longer need to be integrated within a single firm. CGAP identified four core market layers that play distinct functional roles in providing financial services to consumers and MSEs:

- **Balance sheet and risk.** Provision of capital, risk management, and balance sheet risk at the wholesale or retail level
- **Product.** Design and delivery of individual financial products and services
- **Customer relationship.** Customer acquisition, sales, servicing, and permanent primary interface
- **Distribution.** Physical touchpoints for distributing products and serving customers

This shift in market organization enables new players to take on specialized roles, which permits a more differentiated offering and lower cost structures.

Note: See [Appendix](#) for business vertical taxonomy classifications.

Sources: Zetterli (2021), GPF1 (2020), GPF1 (2021)

MSEs themselves benefit from digitization, which further enables innovative MSE finance business models

MSEs that have digitized some of their operations experience numerous benefits, including lower costs, new customer acquisition channels, and improved revenues. They can now also access alternative forms of finance, streamline payments, and obtain new forms of insurance coverage. For example, in a 2021 study conducted by Visa and 60 Decibels, 75 percent of Mexican MSE respondents said their revenue increased when they adopted digital payments during the COVID-19 pandemic.

Increasingly digitized MSEs create digital trails and alternative data that can be used to evaluate credit risk among micro and small businesses and enable open access to alternative sources of financing.

Health and economic shocks from the pandemic created greater momentum among MSEs to digitalize transactions and conduct financial operations online.

Digital tools MSEs use

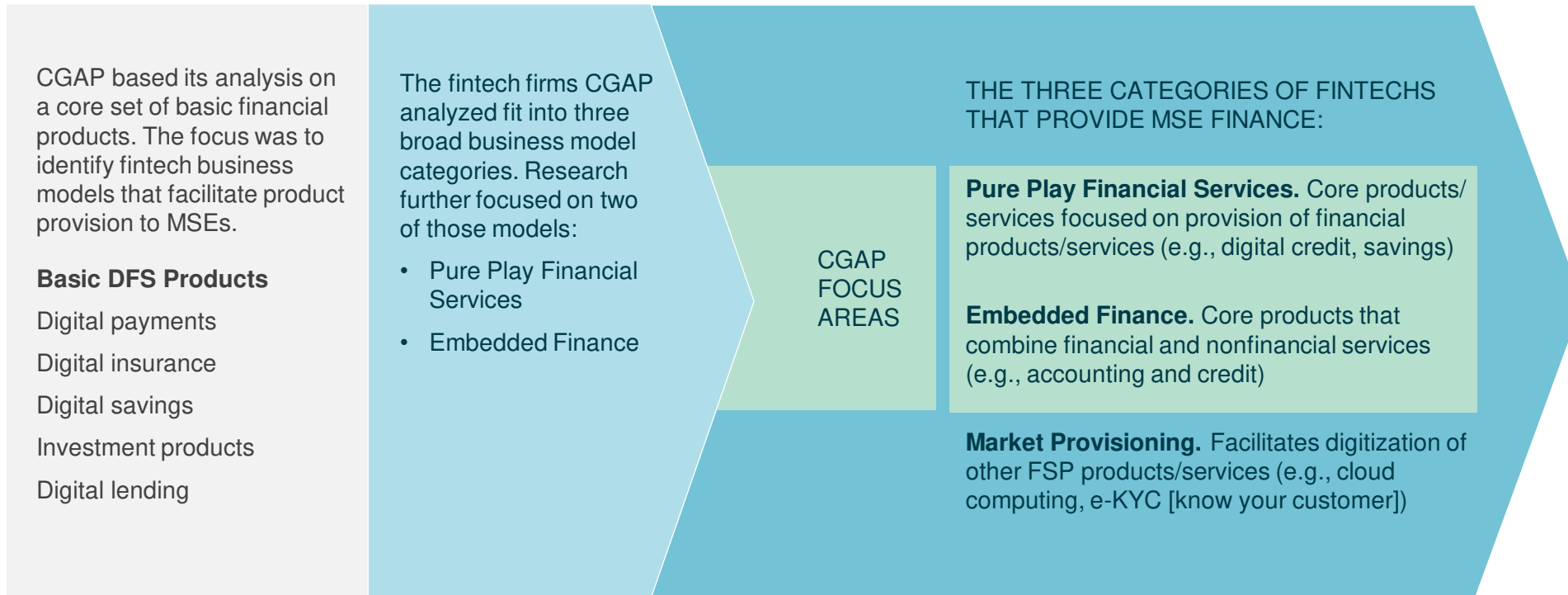
- Digital wallets
- Digital invoices
- Digital purchase orders
- PoS payments
- Mobile money
- E-commerce sales
- Payment gateways



Photo by Zimyarage Auntony

Fintechs that provide MSEs with DFS products fit into three business model categories

CGAP mapped the universe of fintech innovations relevant to MSEs.



Note: Digital payments includes remittances. Market provisioning refers to fintech firms that facilitate the digitalization of other fintech/FSP services/products. Examples include cloud computing, e-KYC, and financial management and business intelligence. This report does not focus on market provisioning but includes it for completeness. See CCAF (2020) study for taxonomy.

Sources: CCAF (2020), CGAP stakeholder interviews (2020)

Several business models stand out within the three broad areas of fintechs that provide MSE finance

The innovative fintech companies analyzed for this report have a high potential to serve underserved and excluded MSEs primarily rely on five business models. This report focuses on four of those models.

Due to the size and importance of the global MSE credit gap, this report mainly focuses on innovations in providing credit to MSEs. However, other financial products and services are critical for MSE growth (e.g., digital transactions executed through affordable payments systems, insurance and savings products that help MSEs build resilience to shocks).

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PURE PLAY

- **Data-driven finance.** Specialized lenders that use MSE data to better understand and reduce MSE lending risks
- **Marketplace finance.** Platform business models that facilitate direct connections between borrowers and lenders
- **Digital banking.** Combined savings and lending products delivered through purely digital channels

EMBEDDED

- **Embedded finance.** Integration of nonfinancial and financial services delivered to MSEs in a seamless bundle
- **Non-credit.** Business models that specialize in other financial services (e.g., payments, insurance, savings)

The research explores variations within each business model

Important variations exist within the four business models, including distinctions in product offerings, investor bases, and model subtypes.

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PURE PLAY

1. Data-driven finance

- Merchant cash advance
- Factoring and invoice finance
- Inventory and input finance
- Unsecured automated business finance

2. Marketplace finance

- Retail individual investor focused
- Institutional/syndicated capital focused

3. Digital banking

- Fully digital retail bank
- Marketplace bank
- Banking-as-a-service

EMBEDDED

4. Embedded finance

- Vertically integrated
- Modularized/partnership based

Each business model was analyzed along two dimensions: supply-side design and demand-side impact

Each business model was viewed through two analytical frameworks. The goal was to provide detailed descriptions of each model and assess how it might enhance financial inclusion.

The first framework, the business model canvas, illustrates how a model overcomes supply-side barriers. The second framework, C.A.F.E. MSE Impact, shows how overcoming barriers may lead to improved customer outcomes.



FRAMEWORK 1. THE BUSINESS MODEL CANVAS

Describes each business model and how it addresses supply-side barriers in a way that is superior to older models. Each business model canvas examines three categories:

- **Who.** The target customer
- **What.** Services, barriers addressed, revenue model
- **How.** Business logic, dependencies



FRAMEWORK 2. C.A.F.E. MSE IMPACT

Describes how overcoming barriers may lead to better financial inclusion outcomes for customers. The framework's four dimensions (aka **C**, **A**, **F**, and **E**) are:

- **Cost.** Can the product be offered at a lower cost?
- **Access.** Does the product increase eligibility and access?
- **Fit.** Can the product be tailored to better fit individual needs?
- **Experience.** Does the product provide improved user experience?

PURE PLAY

1. Data-driven finance

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- Institutional/syndicated capital focused

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- Banking-as-a-service


EMBEDDED

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- Vertically integrated
- Modularized/partnership based

The Business Model Canvas sheds light on how each overarching business model works

The first step analyzes each model by applying our adjusted business model canvas framework, which deconstructs it along six dimensions

 The **Business Model Canvas** describes the business model and how it addresses supply-side barriers in a way that is superior to older models.

WHO? _____

1. Target customers reached. Which primary customer segment(s) are targeted?

WHAT? _____

- 2. Services offered.** Which services does the model offer MSEs?
- 3. Revenue model.** How does the provider earn revenue, who pays, and why are they willing to do so?
- 4. Barriers addressed.** Which supply-side barriers does the model address in order to reach MSEs?

HOW? _____

- 5. Business logic.** How does the business create value for the provider?
- 6. Dependencies.** Which key relationships/dependencies are crucial for the model to work?

We pay close attention to each model's potential to overcome traditional **supply-side barriers** to serving MSEs:

High operating expenses (opex). High customer acquisition and transaction costs relative to small ticket sizes

Low customer lifetime value (CLV). Small ticket sizes with limited ability to increase or cross-sell

Credit risk uncertainty (risk). Insufficient or inaccurate data — combined with a lack of collateral — make adequate risk assessment challenging

The C.A.F.E. MSE Impact framework illustrates each business model's potential to address MSE needs



Cost. Does the business model make financial products/services more affordable for providers to offer and for underserved customers to use?

- Lowers end user fees
- Offers more flexible payments
- Reduces the need for expensive devices
- Requires less or cheaper connectivity
- Reduces the need for collateral

Access. Does the business model make financial products/services more accessible to underserved customers?

- Expands range of products on offer to underserved segments
- Expands eligibility through innovative customer due diligence
- Expands eligibility through innovative risk assessment
- Requires less interaction at physical transaction points
- Expands or improves the distribution of physical transaction points

Fit. Does the business model make financial products/services better suited to the needs and wants of underserved customers?

- Addresses a customer need not served by traditional products
- Better aligns with the needs and wants of underserved customers
- Allows greater customization to different situations, user needs, and preferences
- Is better suited to target customers
- Has higher general user trust and satisfaction

Experience. Does the business model make financial products/services easier for underserved customers to use and understand?

- Has product features that are easier to access, understand, and compare
- Has an interface that most customers find easy to understand and use
- Delivers clear user value
- Helps users identify, understand, and resolve problems
- Gives users control over data
- Provides stronger technical security

3. PURE PLAY FINANCIAL SERVICES

This section focuses on three Pure Play Financial Services business models and several variations. For each business model it:

- deconstructs innovative models – what, who, and how
- analyzes potential impact on MSE clients
- spotlights fintechs with model schematics

3A. DATA-DRIVEN FINANCING MODELS

Merchant cash advance, factoring and invoice finance, inventory and input finance, unsecured automated business finance, marketplace finance

Business model overview

3a. Pure Play: Data-driven Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E.MSE Impact Framework
- Merchant Cash Advance
- Factoring and Invoice Finance
- Inventory and Input Finance
- Unsecured Automated Business Finance

3b. Pure Play: Marketplace Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Marketplace Finance

3c. Pure Play: Digital Banking

- Business Model Overview
- C.A.F.E. MSE Impact Framework Overview
- Business Model Canvases for Marketplace, Banking-as-a-Service, and Fully Digital Banks

4. Embedded Finance

- Embedded Finance models are growing in diversity and complexity
- Modular approaches taken by different models
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Embedded Finance examples

OVERVIEW

Digital data trails, digital tools, and new data generation methods offer multiple advantages in MSE lending:

- Digital transactions and ordering data can act as proxies for business cash flows, providing a more accurate picture of an MSEs financial standing.
- Online information on customer behavior helps build behavioral credit scorecards for credit decision making.
- Digital tools improve the speed and ease of credit disbursement and repayment, offering controls on how loans are used.

These data innovations enable greater efficiency and risk management across a variety of existing business models and lending products.

VARIATIONS

CGAP has observed the growing availability of data giving rise to four variations on the data-driven financing:

- **Merchant cash advance** is a form of credit that provides businesses with upfront cash advances. Repayment occurs via automatic sales receipt deduction. Examples: Kopo Kopo, DPO Group
- **Factoring and invoice finance** is another form of collateralized credit that is backed by a pool of invoices. Factoring transactions typically occur when businesses sell receivables to finance providers at a discount. The latter becomes responsible for managing the debtor's portfolio and collecting payment for underlying receivables. Examples: Lidya, eFactor Network
- **Inventory and input finance** usually takes the form of in-kind lending secured against inventory or inputs. A credit assessment is made against digital orders and/or inventory tracking. Examples: Ula, &frnds, Boost, Wasoko
- **Unsecured automated business finance** can be offered through a high-touch model (i.e., digitized paper documents and automated credit scoring conducted by in-field staff) or a low-touch model (i.e., based on partner-provided digital sales and transactions data and/or alternative data sources). Examples: Aye Finance, Konfio

Sources: Dalberg (2019), Global Supply Chain Finance Forum (2016), GPFI (2020)

The Business Model Canvas: how data-driven finance works

3a. Pure Play: Data-driven Finance

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The **Business Model Canvas** describes each business model and how it addresses supply-side barriers in a way that is superior to older models.

WHAT? _____

Services

- Short- to medium-term credit, usually to finance working capital
- Can be secured or unsecured
- Fully or partially automated

Barriers addressed

- Lowers opex by automating certain parts of the lending cycle (e.g., customer acquisition, data collection and analysis, payments collection)
- Reduces risk by using credit decisioning models based on a multitude of sources (e.g., historical business data, demographic data, credit bureaus)

HOW? _____

Revenue model

- Interest margins and fees linked to lending products
- Fees based on value of goods when a lending product is in-kind

Business logic

- Fintech hosts a digital platform that collects and manages business data (e.g., digital transaction systems, digital invoices management, digital ordering platform)
- Data collected through multiple methods (e.g., in-person through field agents, automatically uploaded from MSE, extracted from a third party)
- Platforms continuously feed data into credit risk models, forming the basis for loan decisions

Dependencies

- Credit assessment depends on quality of available data from MSE and third-party sources
- Availability of required data depends on level of digital infrastructure, legal and regulatory framework, and general level of MSE digitization

How the C.A.F.E. MSE Impact Framework addresses MSE needs

3a. Pure Play: Data-driven Finance

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The **C.A.F.E. MSE Impact Framework** explores how overcoming supply-side barriers may lead to better financial inclusion outcomes for customers.

Cost

Automation of data collection, risk assessment, and credit decisioning reduces operating costs for financial services providers (FSPs); some opex reduction may result in lower credit costs for customers

Additional risk mitigation measures (collateralized cash flows or invoices from reputable providers) reduce risk for FSPs, which could further reduce customer costs

Access

Use of alternative business data (e.g., point of sale [PoS] cash flows, inventory, invoices) expands the addressable universe for MSE finance beyond formalized businesses with reliable financial statements

Usually has no collateral requirements, which also expands ability to reach more MSEs

Fit

Repayment cycles can be more closely tailored to MSEs' actual cashflows

Almost instant financing of inventory and smoothing long repayment cycles among large buyers allows MSEs to optimize working capital utilization

Experience

Increased digital sales can upgrade an established revolving line of credit over time, incentivizing MSE to digitally transact

Integrated loan application in PoS software simplifies the credit application process

Automated repayment is more efficient for the business

Merchant Cash Advance

3a. Pure Play: Data-driven Finance

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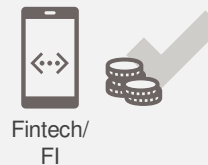
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HOW IT WORKS



1. MSE transacts through fintech's digital transaction system and later applies for a cash advance



2. Fintech/FI approves loan based on historical digital transactions



3. MSE automatically repays loan from digital sales to fintech/FI via controlled account



4. Future sales receipts registered through moveable registry (optional)

EXAMPLE



Overview

Established through a partnership with Safaricom in 2012, the merchant payment portal Kopo Kopo includes several added businesses tools to give MSEs insights and help them manage their business.

Kopo Kopo onboards new MSEs by providing them with an M-PESA mobile money till and credit card PoS, if required. Larger MSEs use APIs to track multiple tills and to allow system integration.

Kopo Kopo increases MSE loyalty by adding tools and features to its platform. Capturing MSE data and applying descriptive and predictive analytics is a crucial element of the portal's business model. Its products/services are aimed to MSEs of all sizes.

Products and portfolio

Kopo Kopo's core business is the payments portal Lipa Na M-PESA, which allows (i) payment aggregation, (ii) B2B payments, (iii) SMS advertisements, and (iv) business intelligence.

In addition, Kopo Kopo offers merchant cash advance – unsecured with automatic payback as a percentage of daily digital sales.

Scale

Given the payment industry's low margins and Kopo Kopo's revenue share model with M-PESA, scale and the portal's higher margin lending products are essential.

The main constraint to onboarding MSEs on the portal is the prevailing cash-based preference of MSEs and their clients. The main challenge is to cross sell products once MSEs join the platform.

Sources: Bridging the Credit Gap for Micro and Small Enterprises through Digitally Enabled Financing Models, CGAP–Dalberg study (January 2019), Kopo Kopo website, IFC MSME Financing Gap (2017)

Factoring and Invoice Finance

3a. Pure Play: Data-driven Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E.MSE Impact Framework
- Merchant Cash Advance
- ▶ Factoring and Invoice Finance
- Inventory and Input Finance
- Unsecured Automated Business Finance

3b. Pure Play: Marketplace Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Marketplace Finance

3c. Pure Play: Digital Banking

- Business Model Overview
- C.A.F.E. MSE Impact Framework Overview
- Business Model Canvases for Marketplace, Banking-as-a-Service, and Fully Digital Banks

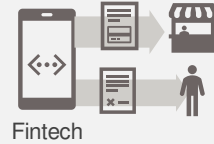
4. Embedded Finance

- Embedded Finance models are growing in diversity and complexity
- Modular approaches taken by different models
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Embedded Finance examples

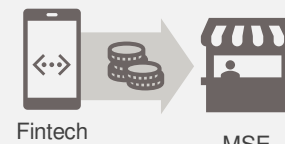
HOW IT WORKS



1. Buyer places order with MSE, then MSE submits purchase order to fintech



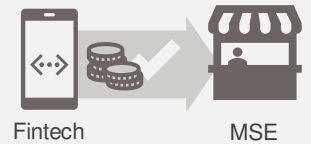
2. Fintech issues buyer an invoice and processes an automated credit application against the MSE invoice



3. Fintech provides MSE an advance for order fulfillment



4. When order is due, buyer pays fintech the invoice in full



5. Fintech recovers capital, charges interest and/or fees, remits remainder to MSE

EXAMPLE



Overview

Established in 2016 in Nigeria, Lidya's mission is to help great business owners build high-impact businesses.

Lidya uses data to identify well-run businesses, offering credit and spend management tools to help them grow faster and spend intelligently.

Products and portfolio

Lidya's primary product is a noncollateral working capital loan, offered to small- and medium-sized businesses within 24 hours of application through its proprietary platform and credit scoring algorithms.

Lidya requires three months of transaction data and analyzes up to 1,000 data points per customer to offer loans for up to 60 days. Average loan size is USD 8.6 thousand.

The average Lidya client is an informal business that repays loans through daily, weekly, or monthly repayments and has taken six Lidya loans. Lidya's portfolio has a repayment rate of 99 percent.

Lidya clients have access to fully digital payments, plus treasury and spend management tools that give business owners a single, all-in-one finance platform so they can better understand their company and grow sustainably.

Scale

By June 2022, Lidya had disbursed approximately USD 100 million in loans, representing close to 50x growth in credit disbursed since its first full year of operation. Lidya expects to disburse over USD 250 million in credit within the next 24 months.

Inventory and Input Finance

3a. Pure Play: Data-driven Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E.MSE Impact Framework
- Merchant Cash Advance
- Factoring and Invoice Finance
- ▶ **• Inventory and Input Finance**
- Unsecured Automated Business Finance

3b. Pure Play: Marketplace Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Marketplace Finance

3c. Pure Play: Digital Banking

- Business Model Overview
- C.A.F.E. MSE Impact Framework Overview
- Business Model Canvases for Marketplace, Banking-as-a-Service, and Fully Digital Banks

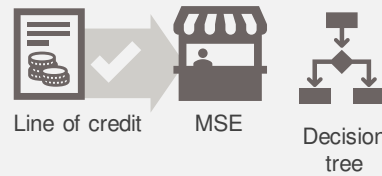
4. Embedded Finance

- Embedded Finance models are growing in diversity and complexity
- Modular approaches taken by different models
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Embedded Finance examples

HOW IT WORKS



1. Existing MSE client places order on fintech platform



2. MSE is offered a line of credit. Decision is informed through scoring models embedded in the platform



3. Fintech places order from its warehouse/distributor



4. Goods delivered to MSE, MSE repays credit by agreed-upon date

EXAMPLE



Overview

Launched in Indonesia in late 2019, Ula has rapidly scaled to over 200,000 MSEs. The platform is a one-stop shop for over 10,000 fast-moving consumer goods (FMCG) products and perishables.

MSEs use Ula's android-based platform to place orders, receive goods, and make payments — all from the convenience of their shop and at competitive market prices.

Clients appreciate the available credit line that allows small merchants to “buy now, pay later” for inventory required for a period of seven days — without any additional charge.

Ula purchases goods directly from large FMCG companies and stores them in its warehouses. It contracts door-to-door delivery to third parties.

Ula's typical MSE client is a sole proprietorship; 63 percent are female owners of a business that turns over approximately USD 1,000 per month.

The platform continuously reviews MSE credit limits and fast-moving items to ensure its warehouses are accordingly stocked.

Products and portfolio

Overdraft facilities go up to USD 1,500 and are determined by the MSE's transactional history on the platform.

Other products/services include community selling, virtual stores created for individuals, and the option to become an Ula pick-up point.

Scale

The FMCG retail market for MSEs in Indonesia is estimated at USD 250 billion, with many players competing for market share.

Successful platforms are those that are the most convenient for MSEs. The trend will likely result in several large players offering a wide variety of products/services consolidated into one app.

Unsecured Automated Business Finance

3a. Pure Play: Data-driven Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E.MSE Impact Framework
- Merchant Cash Advance
- Factoring and Invoice Finance
- Inventory and Input Finance
- ▶ Unsecured Automated Business Finance

3b. Pure Play: Marketplace Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Marketplace Finance

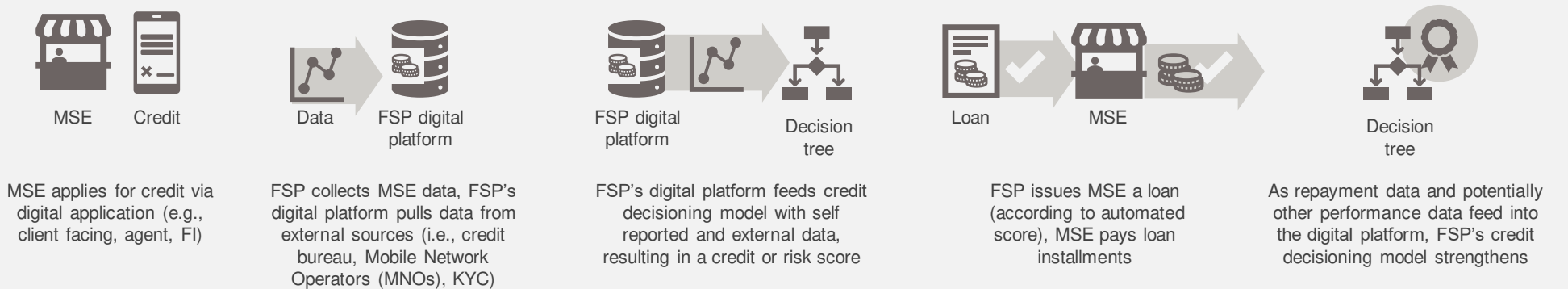
3c. Pure Play: Digital Banking

- Business Model Overview
- C.A.F.E. MSE Impact Framework Overview
- Business Model Canvases for Marketplace, Banking-as-a-Service, and Fully Digital Banks

4. Embedded Finance

- Embedded Finance models are growing in diversity and complexity
- Modular approaches taken by different models
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Embedded Finance examples

HOW IT WORKS



The unsecured automated business financing model uses cutting-edge technology to manage risk and improve efficiency. Some companies complement this high-tech element with a high-touch model to better serve more vulnerable groups. Others rely on a purely digital low-touch approach.

High-touch vs low-touch model

The high-touch model usually operates through loans officers in combination with a centralized credit unit. It is perhaps better used to target underserved. The high-touch model is most effective in reaching excluded MSEs with low digital and financial literacy and/or trust in digital finance.

The low-touch model works better among digitally savvy MSEs and in environments with strong digital infrastructure, where third-party data is available (including credit bureau data) and where trusted and functioning oversight of digital FSPs exists.

Low touch can be more agile in providing instant credit approvals and digital disbursements.

Variations and hybrids exist between the high-touch and low-touch ends of the spectrum. The external regulatory environment and digital infrastructure often influence the way a model develops.

Unsecured Automated Business Finance

3a. Pure Play: Data-driven Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E.MSE Impact Framework
- Merchant Cash Advance
- Factoring and Invoice Finance
- Inventory and Input Finance
- ▶ Unsecured Automated Business Finance

3b. Pure Play: Marketplace Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Marketplace Finance

3c. Pure Play: Digital Banking

- Business Model Overview
- C.A.F.E. MSE Impact Framework Overview
- Business Model Canvases for Marketplace, Banking-as-a-Service, and Fully Digital Banks

4. Embedded Finance

- Embedded Finance models are growing in diversity and complexity
- Modular approaches taken by different models
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Embedded Finance examples



EXAMPLE HIGH TECH AND HIGH TOUCH

Overview

Established in India in 2014, Aye Finance primarily provides unsecured working capital loans to sole proprietorship MSEs with zero or thin credit files and cash operations.

Loan officers only visit new clients or conduct post-disbursement visits for data collection and verification.

Aye applies data analytics and modeling across the credit cycle, from analysis and scoring to decisioning, disbursement, monitoring, and collection. All these tasks are automated and managed through a centralized credit unit.

Products and portfolio

Aye's more than 450,000 clients have received individual business loans through its network of 311 branches. It disburses over 15,000 loans per month.

Aye offers unsecured business loans up to USD 2,500 for up to 24 months. Larger loans require additional forms of security.

Scale

This high-touch and high-tech hybrid business model has few dependencies. It only requires that MSE clients have a bank account.

Unlike several other technology-enabled business models, it does not require MSEs to make digital business transactions.

Scale is required to offset the high operational costs of a loan officer network and to ensure the strong predictive power of models that require large data sets.



EXAMPLE HIGH TECH AND LOW TOUCH

Overview

Launched in Mexico in 2014, the fintech Konfio has developed an integrated platform of financial services, payments solutions, and productivity software for Small and Medium Enterprises (SMEs).

The company uses predictive modeling to underwrite business loans and credit cards and to manage existing customers throughout their business lifecycle. Its strong predictive data combines traditional data sources with transactional and behavioral data.

A large proportion of Konfio's portfolio consists of sole proprietors and companies. Working capital loans start at USD 4,900 and average loan size stands at USD 21,300.

Products and portfolio

Konfio offers a range of financial services, including digital lending (working capital loans and credit cards) and digital payments and PoS.

Its nonfinancial services include cloud-based business management tools; blog notes, webinars, and whitepapers; and a business directory to increase the digital visibility of SMEs.

By July 2022, Konfio had 45,953 SME customers, issued an average of 1,482 loans per month, and had a portfolio worth USD 266.3 million.

Scale

Konfio has both organic growth (primarily through digital channels) and growth through acquisition (e.g., its purchase of Señor Pago added payments customers).

The fintech now reaches 82 percent of Mexico's regions through its digital operations.

3B. MARKETPLACE FINANCE MODELS

Business model overview

3a. Pure Play: Data-driven Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Merchant Cash Advance
- Factoring and Invoice Finance
- Inventory and Input Finance
- Unsecured Automated Business Finance

3b. Pure Play: Marketplace Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Marketplace Finance

3c. Pure Play: Digital Banking

- Business Model Overview
- C.A.F.E. MSE Impact Framework Overview
- Business Model Canvases for Marketplace, Banking-as-a-Service, and Fully Digital Banks

4. Embedded Finance

- Embedded Finance models are growing in diversity and complexity
- Modular approaches taken by different models
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Embedded Finance examples

Marketplace finance – sometimes referred to as peer-to-peer (P2P) lending, platform lending, or crowdfunding – has been steadily rising across developed and developing countries.

Marketplace finance platforms directly connect investors and borrowers. Using data analytics to better inform risk profiles, lenders often offer unsecured loans. In some instances, pooled risk techniques allow loans to be structured among several lenders, which diversifies risk exposure and does not tie them to individual borrowers.

Marketplace finance offers several potential advantages over traditional lending, including lower cost structures, more accurate underwriting via data and analytics, and more efficient and faster underwriting processes that are better aligned with customer preferences.

In turn, this offers advantages for MSE borrowers that are often disenfranchised from the financial system, including lower financing costs, greater availability of credit for unserved and underserved market segments, and a more convenient and faster mode of access to capital.

We note two important variations in marketplace finance business models:

- Individual investor-centric – the platform gives individuals the choice to fund individual or bundled MSE loans, offering higher returns to individual investors that want higher risk exposure. This may also involve banks/FIs that want to use the platform and leverage their balance sheet to fund bundled MSE loans (e.g., Faircent, Kubo Financiero).
- Syndicated capital-centric – the platform allows multiple banks, pension funds, institutional investors, or individual funders to contribute to individual or bundled MSE loans, reducing risk for any individual bank or investor (e.g., Lending Club).

Note: Peer-to-peer lending globally has been cited to have grown at CAGR 25 percent during the 2014-2019 period, with expected growth rates of 31 percent for the period 2021-2026.

Sources: Dalberg (2019); Perkins (2018), IMARC Group (2022)

Business Model Canvas: how marketplace finance works

3a. Pure Play: Data-driven Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E.MSE Impact Framework
- Merchant Cash Advance
- Factoring and Invoice Finance
- Inventory and Input Finance
- Unsecured Automated Business Finance

3b. Pure Play: Marketplace Finance

- Business Model Overview
- ▶ • Business Model Canvas and C.A.F.E. MSE Impact Framework
- Marketplace Finance

3c. Pure Play: Digital Banking

- Business Model Overview
- C.A.F.E. MSE Impact Framework Overview
- Business Model Canvases for Marketplace, Banking-as-a-Service, and Fully Digital Banks

4. Embedded Finance

- Embedded Finance models are growing in diversity and complexity
- Modular approaches taken by different models
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Embedded Finance examples



The **Business Model Canvas** describes each business model and how it addresses supply-side barriers in a way that is superior to older models.

WHAT?

Services

Digital platform that directly (without intermediation) connects lenders and borrowers.

Barriers addressed

Lower opex due to:

- Disintermediation — directly connects borrowers with lenders without a traditional bank in the middle
- Low capital requirements — low cost, high margin lending opportunity for platform providers

Improved risk: Rapid credit assessment using data analytics, alternate information sources, and evolving credit scoring.

Revenue model

- Commissions
- Intermediation margin

HOW?

Business logic

- Platforms provide opportunities for improved returns on capital and risk reduction through syndication.
- Options for platform set-up:
 - Individual investor-centric – outsourcing data analytics to platform and customer acquisition while leveraging FI balance sheet to fund individual or bundled MSME loans
 - Syndicated capital-centric – attracting multiple FIs and individual investors and diversifying risk exposure to any given borrower

Dependencies

- Obtaining sufficient MSE data to develop reliable credit assessment.
- Accuracy of the credit scoring models.
- Appropriate legal frameworks that protect the interests of both borrower and lender.
- Support trust building by ensuring that all fees, charges, and platform provider activities are open and transparent.

Note: Unless otherwise noted, the target customer is always an MSME.

How the C.A.F.E. MSE Impact Framework addresses MSE needs

3a. Pure Play: Data-driven Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Merchant Cash Advance
- Factoring and Invoice Finance
- Inventory and Input Finance
- Unsecured Automated Business Finance

3b. Pure Play: Marketplace Finance

- Business Model Overview
- ▶ Business Model Canvas and C.A.F.E. MSE Impact Framework
- Marketplace Finance

3c. Pure Play: Digital Banking

- Business Model Overview
- C.A.F.E. MSE Impact Framework Overview
- Business Model Canvases for Marketplace, Banking-as-a-Service, and Fully Digital Banks

4. Embedded Finance

- Embedded Finance models are growing in diversity and complexity
- Modular approaches taken by different models
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Embedded Finance examples

Marketplace finance platforms provide MSE borrowers with the opportunity to directly connect with lenders, creating the potential for expanded access and more tailored products.



The **C.A.F.E. MSE Impact Framework** explores how overcoming supply-side barriers may lead to better financial inclusion outcomes for customers.

Cost

Platform lending can help MSEs secure a more competitive finance rate as a result of:

- Improved credit assessment techniques
- Disintermediation, directly connecting borrowers and savers rather than through a bank
- Competition among investors that want to fund MSEs

Access

Expanded eligibility of financing through:

- Innovative risk assessment techniques
- Access to a broader realm of investor choices seeking exposure/higher returns

Fit

Key credit terms (e.g., amount, tenor) could be more closely tailored to actual MSE needs

Experience

Potential for less cumbersome and more transparent underwriting processes

Marketplace Finance

3a. Pure Play: Data-driven Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Merchant Cash Advance
- Factoring and Invoice Finance
- Inventory and Input Finance
- Unsecured Automated Business Finance

3b. Pure Play: Marketplace Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Marketplace Finance

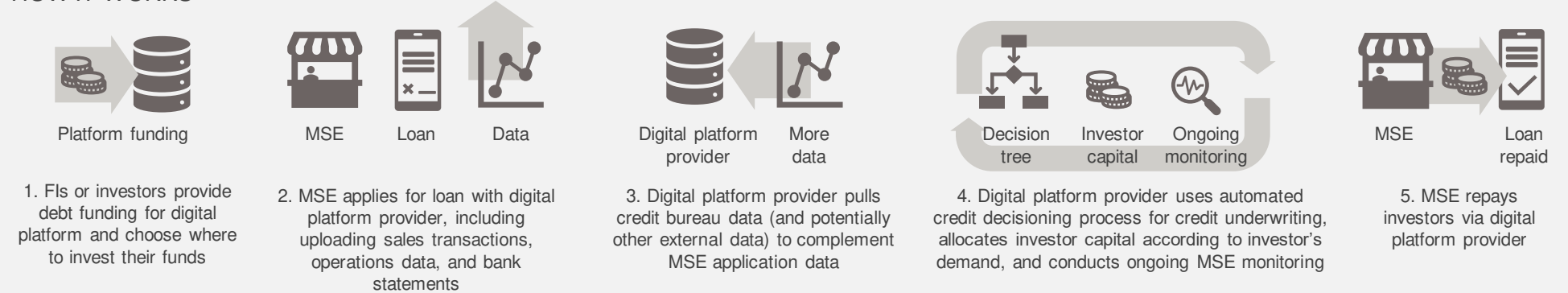
3c. Pure Play: Digital Banking

- Business Model Overview
- C.A.F.E. MSE Impact Framework Overview
- Business Model Canvases for Marketplace, Banking-as-a-Service, and Fully Digital Banks

4. Embedded Finance

- Embedded Finance models are growing in diversity and complexity
- Modular approaches taken by different models
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Embedded Finance examples

HOW IT WORKS



EXAMPLE



Overview

Established in India in 2013, Faircent (FC) started operations in 2015. With one principal office in Gurgaon, FC employs over 250 staff members.

FC has over 150 APIs (i.e., goods and services tax, income tax, banking statements) that flow into a propriety engine. This primarily rule-based decision-making tool produces credit offers. The process requires no human involvement and different loan products rely on different data sets.

Products and portfolio

Pandemic-related lockdowns boosted Faircent's business. The platform now disburses over 40,000 loans per month, worth USD 16 million.

Business loans are its main offering, 80% of the business loans are directed towards MSME financing. Other products include educational loans for career enhancement purposes and microfinance and invoice financing loans. FC facilitates loans across 600 regions in India.

Its evenly distributed portfolio is spread across geographies. With 3 percent exposure, Bangalore's portfolio is the largest.

Scale

Despite its limited on-ground presence, FC covers the pan-India market. It facilitates loans across 600 regions through seamless online and fully automated processes.

Lenders across boundaries can register and lend through the platform. The platform is promoted through direct sales and marketing agents and by partnering with investment advisors and wealth investors.

Aside from direct lending, FC initiates loans in partnership with aggregators like MobiKwik and Indialends (MNO) and others.

The FC ecosystem is evolving through partnerships, outsourcing customer acquisition, and helping digital platforms scale.

India Stack/UPI makes it convenient to transact online as payment touchpoints are now available everywhere.

Although FC has unlimited reach, it stopped lending to MSEs with monthly incomes below INR 20,000 – a practice largely related to the interest rate cap.

3C. DIGITAL BANKING MODELS

Fully digital retail banking, marketplace banking, banking-as-a-service

Business model overview

3a. Pure Play: Data-driven Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E.MSE Impact Framework
- Merchant Cash Advance
- Factoring and Invoice Finance
- Inventory and Input Finance
- Unsecured Automated Business Finance

3b. Pure Play: Marketplace Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Marketplace Finance

3c. Pure Play: Digital Banking

- ▶ Business Model Overview
- C.A.F.E. MSE Impact Framework Overview
- Business Model Canvases for Marketplace, Banking-as-a-Service, and Fully Digital Banks

4. Embedded Finance

- Embedded Finance models are growing in diversity and complexity
- Modular approaches taken by different models
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Embedded Finance examples

- Bank is sole provider
- ◐ Multiple providers involved
- Product/service not offered

Modularized Banking Functions

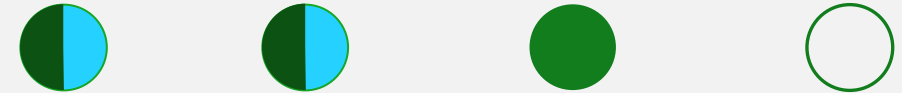
BALANCE SHEET PRODUCT CUSTOMER RELATIONSHIP DISTRIBUTION

Traditional retail banks are vertically integrated and do everything in-house.



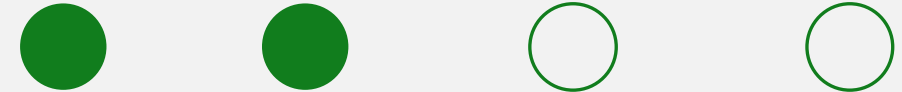
Digital banking refers to deposit-taking institutions with a banking license that deliver banking services through digital channels rather than physical branches.

Marketplace banks offer products from third-party providers and focus on creating better value in the customer relationship layer.



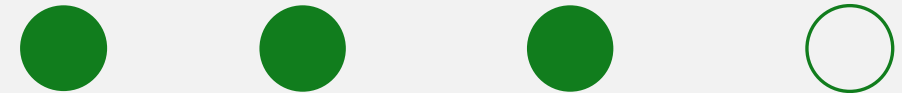
Recent CGAP publications highlight three distinct digital banking models, which are described in brief (see right). Each model differentiates itself based on the role it plays in a modularized market structure.

Banking-as-a-service providers relinquish the customer layer to focus on creating products and value.



Readers are encouraged to refer to the original CGAP publications (see [Digital Banks: How can They Deepen Financial Inclusion?](#) and [Inclusive Digital Banking: Emerging Markets Case Studies](#)).

Fully digital retail banks outsource the physical distribution layer to partners with ATM or retail networks.



Sources: Jenik and Zetterli (2020), GFPI (2020)

How the C.A.F.E. MSE Impact Framework addresses MSE needs

3a. Pure Play: Data-driven Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Merchant Cash Advance
- Factoring and Invoice Finance
- Inventory and Input Finance
- Unsecured Automated Business Finance

3b. Pure Play: Marketplace Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Marketplace Finance

3c. Pure Play: Digital Banking

- Business Model Overview
- ▶ C.A.F.E. MSE Impact Framework Overview
- Business Model Canvases for Marketplace, Banking-as-a-Service, and Fully Digital Banks

4. Embedded Finance

- Embedded Finance models are growing in diversity and complexity
- Modular approaches taken by different models
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Embedded Finance examples

Although digital banking is currently the most prominent in developed countries and focuses on consumers rather than small businesses, it has the potential to reach excluded MSEs in emerging and developing economies as well. The use of digital

channels and lower capital costs than non-deposit-taking institutions makes digital banks well suited to provide MSEs with improved financial services.



The **C.A.F.E. MSE Impact Framework** explores how overcoming supply-side barriers may lead to better financial inclusion outcomes for customers.

Cost

Potential for lower MSE customer costs through:

- Reduced physical infrastructure costs for FSPs
- Automated back- and front-end functions
- Lower compliance costs through regtech
- Cloud-based software-as-a-service (SaaS) shifts costs from capex to opex

Access

- Digital channels and third-party distribution (including agents) ensures 24/7 availability and brings services closer to customers
- Alternative data expands eligibility (e.g., credit access)
- Enables a wide range of providers to offer banking services

Fit

- Technology stack provides flexibility to add products and tailor functionality, including catering to niche MSE segments
- Service-oriented architecture and open APIs create flexibility and efficiency in designing suitable products

Experience

- Convenient 24/7 service availability
- Behavioral nudging promotes beneficial consumer behavior
- Greater control and transparency increases customer trust
- Integrates into the lifestyle of digitally native MSEs
- One-stop shopping for a variety of financial needs

Business Model Canvas – how Marketplace Banking works

3a. Pure Play: Data-driven Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E.MSE Impact Framework
- Merchant Cash Advance
- Factoring and Invoice Finance
- Inventory and Input Finance
- Unsecured Automated Business Finance

3b. Pure Play: Marketplace Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Marketplace Finance

3c. Pure Play: Digital Banking

- Business Model Overview
- C.A.F.E. MSE Impact Framework Overview
- ▶ Business Model Canvases for Marketplace, Banking-as-a-Service, and Fully Digital Banks

4. Embedded Finance

- Embedded Finance models are growing in diversity and complexity
- Modular approaches taken by different models
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Embedded Finance examples



The **Business Model Canvas** describes each business model and how it addresses supply-side barriers in a way that is superior to older models.

WHAT?

Services

Includes accounts, cards, app-based interface and comparison tools, and financial advice, plus third-party products such as credit, savings, and insurance

Barriers addressed

Front-end customers: Lower opex due to seamless onboarding, one-stop shop for improved CLV from a variety of financial products

Back-end FSPs:

- Lower opex due to digital delivery channel and lower customer acquisition costs
- Improved risk assessment due to access to customer data

Revenue model

Business to consumer (B2C)
Same as fully digital retail bank: freemium, interchange, interest revenue, subscription mode

Business to business (B2B):

- Commission on referrals
- Fee per API call
- Product revenue share
- Subscription model

WHO?

Target customers

- B2C: Individual MSMEs (front end)
- B2B: Third-party FSPs (back end)

HOW?

Business logic

- Focus internal effort on core product, partner for all others
- Shift from a sales role toward an advisory relationship with user
- Increased customer loyalty and stickiness
- Potentially significant new B2B revenue

Dependencies

- Reliance on third-party product providers
- IT stack must enable real-time integration and customization
- Superior user experience (UX), simplified complexity and core capabilities

Business Model Canvas – how Banking-as-a-Service works

3a. Pure Play: Data-driven Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E.MSE Impact Framework
- Merchant Cash Advance
- Factoring and Invoice Finance
- Inventory and Input Finance
- Unsecured Automated Business Finance

3b. Pure Play: Marketplace Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Marketplace Finance

3c. Pure Play: Digital Banking

- Business Model Overview
- C.A.F.E. MSE Impact Framework Overview
- ▶ Business Model Canvases for Marketplace, Banking-as-a-Service, and Fully Digital Banks

4. Embedded Finance

- Embedded Finance models are growing in diversity and complexity
- Modular approaches taken by different models
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Embedded Finance examples



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WHO?

Target customers

- B2B: Non-banks, fintechs, digital brands, and FSPs
- Digital consumer companies (e-commerce)
- Fintechs without a banking license
- Licensed FSPs (e.g., fully digital retail banks, payments services providers)

WHAT?

Services

White label banking products and capabilities plus banking license and balance sheet

Barriers addressed

- Lower opex due to lower barriers to entry into banking and standardized products or
- Improved CLV from highly customized bespoke products

Revenue model

- Pay-per-use fees on volume/API calls
- Monthly subscriptions
- Product-level revenue share
- Risk underwriting

HOW?

Business logic

- Create economies of scope and scale by commoditizing core banking elements
- Specialize in back-end capabilities (technology and compliance) rather than front-end B2C
- Embed financial services into each digital consumer context

Dependencies

- Full banking license
- Sophisticated tech stack and capacity
- Strong compliance and due diligence capabilities
- Trusted relationship with regulators

Source: Jenik and Zetterli (2020)

Business Model Canvas – how Fully Digital Retail Banking works

3a. Pure Play: Data-driven Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E.MSE Impact Framework
- Merchant Cash Advance
- Factoring and Invoice Finance
- Inventory and Input Finance
- Unsecured Automated Business Finance

3b. Pure Play: Marketplace Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Marketplace Finance

3c. Pure Play: Digital Banking

- Business Model Overview
- C.A.F.E. MSE Impact Framework Overview

- ▶ Business Model Canvases for Marketplace, Banking-as-a-Service, and Fully Digital Banks

4. Embedded Finance

- Embedded Finance models are growing in diversity and complexity
- Modular approaches taken by different models
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Embedded Finance examples



The **Business Model Canvas** describes each business model and how it addresses supply-side barriers in a way that is superior to older models.

WHAT? _____

Services

Transactional account with a payments instrument and an app-based interface as well as other services such as credit, savings, and insurance.

Barriers addressed

Lower opex, given the limited physical presence and infrastructure requirements

Improved risk due to data analytics and transactional data for credit decision making and cross-sell targeting

Revenue model

- Often “freemium”
- Subscription models
- Payments interchange typically important
- Net interest margin

HOW? _____

Business logic

- Low operational cost and high scalability thanks to limited physical infrastructure, cloud, and heavy automation
- Free or low-cost accounts incentivize digital payment use
- Transactional data helps tailor, target, and cross-sell products
- Low margin, high scale, and volume play

WHO? _____

Target customers

Individuals and MSMEs

Dependencies

- Regulated and licensed as a conventional bank
- Sometimes use non-bank license or relies on regulated partners
- Typically relies on partners for distribution
- Requires significant IT skill and investment
- Requires customers to use smartphones, data

Example: Fully Digital Retail Banking

3a. Pure Play: Data-driven Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E.MSE Impact Framework
- Merchant Cash Advance
- Factoring and Invoice Finance
- Inventory and Input Finance
- Unsecured Automated Business Finance

3b. Pure Play: Marketplace Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Marketplace Finance

3c. Pure Play: Digital Banking

- Business Model Overview
- C.A.F.E. MSE Impact Framework Overview
- ▶ Business Model Canvases for Marketplace, Banking-as-a-Service, and Fully Digital Banks

4. Embedded Finance

- Embedded Finance models are growing in diversity and complexity
- Modular approaches taken by different models
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Embedded Finance examples



Overview

Tyme is a multi-country digital banking group that is active in South East Asia and Sub-Saharan Africa. It is focused on bridging the digital divide in emerging markets by integration into physical retail ecosystems. Tyme designs, builds, and commercializes mass-market digital banks, with particular expertise in serving underserved and underbanked populations.

TymeBank, Tyme's subsidiary in South Africa, is currently one of the world's fastest-growing digital banks. In South Africa, it has acquired over 5 million customers since its launch in February 2019.

TymeBank customers onboard digitally – either online or at digital kiosks within TymeBank partner locales or within Pick n Pay and TFG retail stores. Over 80 percent of customers have onboarded through these self-service kiosks. The bank is founded on simplicity, transparency, and affordability. It is designed to make digital banking accessible and affordable to all South Africans across the full economic spectrum.

Products and portfolio

With already over 100,000 customers, TymeBank's Business Banking offering launched as a transactional business account customers can open in less than five minutes. It includes zero monthly bank fees, free debit card and online purchase transactions, and free bulk payments, among other benefits.

The account will be bolstered by TymeBank's proposed acquisition of the embedded finance expert, Retail Capital. The company has a high-touch relationship model and a low-touch PoS-based embedded funding solution for working capital that links payments to revenue turnover. Throughout the past decade, Retail Capital has funded over 43,000 business owners with more than ZAR 5.5 billion to date.

Its other new products include TymePOS, a mobile point-of-sale app that turns a cellphone into a tap-and-go payment device. As a soft PoS solution, it offers small merchants affordable pricing with next-day settlement. The offering also includes TymeSellonSocial, an innovative web-based e-commerce app that makes it easy for small merchants to sell their wares on Facebook and Instagram. The offering features an embedded delivery service. TymeSellonSocial is designed to serve South Africa's growing "side hustle" community – an industry purportedly valued at more than USD 500 million.

A suite of nonfinancial services offered through the TymeTrybe platform pulls it all together. The platform equips small business owners with a comprehensive range of business tools, accredited courses, and other educational services, as well as access to networking opportunities. The combination of financial and nonfinancial service business tools provides South Africa's owner-managed businesses quick and easy mechanisms to expand and grow revenue.

Scale

With a full suite of enterprise products now available, the Business Banking offering is expected to rapidly scale, including Retail Capital. The proposed new lending division can significantly scale the business, leveraging TymeBank's low-cost capital and accessing its MSME accounts.

The company is poised to offer its clients the TymeTrybe, TymeSellonSocial, and TymePOS value-added services. Retail Capital SME customer employees will also be able to open TymeBank consumer accounts and access TymeAdvance, an early wage access product.

4. EMBEDDED FINANCE

This section focuses on several variations of Embedded Finance business models. It also:

- deconstructs innovative models – what, who, and how
- analyzes potential impact on MSE clients
- spotlights fintech's with model schematics

Embedded Finance models are growing in diversity and complexity

3a. Pure Play: Data-driven Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E.MSE Impact Framework
- Merchant Cash Advance
- Factoring and Invoice Finance
- Inventory and Input Finance
- Unsecured Automated Business Finance

3b. Pure Play: Marketplace Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Marketplace Finance

3c. Pure Play: Digital Banking

- Business Model Overview
- C.A.F.E. MSE Impact Framework Overview
- Business Model Canvases for Marketplace, Banking-as-a-Service, and Fully Digital Banks

4. Embedded Finance

- ▶ Embedded Finance models are growing in diversity and complexity
- Modular approaches taken by different models
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Embedded Finance examples

Embedded finance is creating a realm of opportunities for incumbents, real sector companies, and fintechs to provide both financial and nonfinancial services through single interfaces. While there is great diversity and growing complexity among embedded finance offerings, most can be categorized in one of two ways:

- In-house embedded finance: Real sector firms that provide financial services either on- or off-balance sheet (e.g., through special purpose vehicles) or by setting up captive financial institutions
- Partnership-based embedded finance: Collaboration between real sector firms and one or more financial institutions (e.g., banks, payments operators, fintechs, others) that offer a more “plug and play” environment (e.g., banking-as-a-service, API providers)

Embedded Finance examples

- E-commerce: Provide payment and credit solutions for sellers and buyers through a separate financial entity (e.g., Ant Financial, Mercado Libre, Rappi, Railsbank).
- Ridesharing companies: Offer debit cards, instant payouts or digital wallets (e.g., Uber, Lyft, Grab), or financing for drivers to purchase vehicles (e.g., Moove).
- Sector-oriented companies and fintech: Partnerships between Fast Moving Consumer Good companies (FMCGs) and fintechs that allow small merchants to gain working capital financing to purchase inventory plus software for more seamless inventory ordering and management (e.g., Tienda Pago, Wasoko).
- Nonfinancial companies whose main offering is market provisioning services (e.g., supply chain management, accounting, customer relationships) that then add financial services to it (e.g., Khatabook, Bukuwarung).
- Fintechs whose main offering is a financial product (e.g., payments, lending) that then add nonfinancial services to it (e.g., Konfio).

Sources: Cornelli (2017), World Bank (2020)

Framework showing modular approaches taken by different models

3a. Pure Play: Data-driven Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E.MSE Impact Framework
- Merchant Cash Advance
- Factoring and Invoice Finance
- Inventory and Input Finance
- Unsecured Automated Business Finance

3b. Pure Play: Marketplace Finance

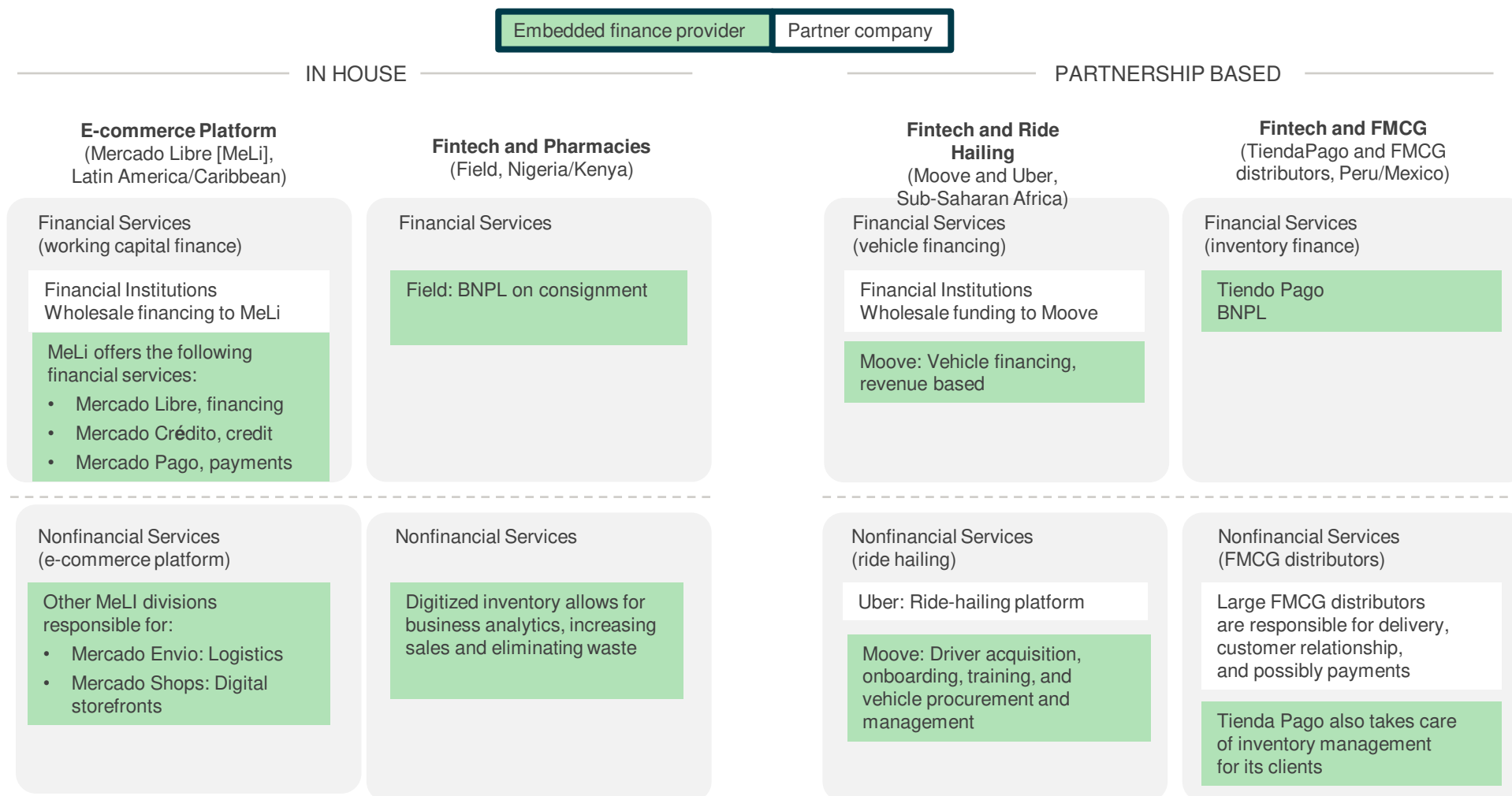
- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Marketplace Finance

3c. Pure Play: Digital Banking

- Business Model Overview
- C.A.F.E. MSE Impact Framework Overview
- Business Model Canvases for Marketplace, Banking-as-a-Service, and Fully Digital Banks

4. Embedded Finance

- Embedded Finance models are growing in diversity and complexity
- ▶ Modular approaches taken by different models
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Embedded Finance examples



Source: Zetterli (2021)

Business Model Canvas – how Embedded Finance works

3a. Pure Play: Data-driven Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E.MSE Impact Framework
- Merchant Cash Advance
- Factoring and Invoice Finance
- Inventory and Input Finance
- Unsecured Automated Business Finance

3b. Pure Play: Marketplace Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Marketplace Finance

3c. Pure Play: Digital Banking

- Business Model Overview
- C.A.F.E. MSE Impact Framework Overview
- Business Model Canvases for Marketplace, Banking-as-a-Service, and Fully Digital Banks

4. Embedded Finance

- Embedded Finance models are growing in diversity and complexity
- Modular approaches taken by different models
- ▶ Business Model Canvas and C.A.F.E. MSE Impact Framework
- Embedded Finance examples



WHAT?

Services

Embedded digital financial services (DFS) serving customer financial needs

Nonfinancial services (NFS) targeting business owners/consumers

Barriers addressed

Lower opex from third-party partnerships by decreasing customer acquisition costs and risk, and streamlining product offering, sales, and servicing

Improve risk by cross-leveraging financial and nonfinancial data for enhanced credit decision making

Increase CLV by seamlessly bundling financial and nonfinancial services

Revenue model

- Interest margin on lending products
- Payment fees
- Insurance policy premiums
- NFS core offering fees

HOW?

Business logic

Provide customers with holistic financial and nonfinancial services

Target customers with specific offerings to meet their needs

Once customers avail primary services, add a secondary business line to complement existing services:

- For NFS-led services, add financial services (e.g., digital payments, lending, insurance, etc.)
- For DFS-led models, integrate NFS offerings (e.g., supply chain management, accounting, customer relationship etc.)

WHO?

Target customers

Consumers and MSMEs

Dependencies

Embedded financial (EF) service requires data analysis generated from the primary service to inform the structure of complementary services. For instance, NFS data could inform types of payments services, business credit profiles, insurance policy types, etc.

Decision to offer EF via an in-house or partnership-based approach depends on the provider's vision and business decisions. Importantly, customers must see value added: NFS strengthens customer capacity (e.g., improved business operations) while DFS provides ease of accessing vital financial services via the same platform.

How the C.A.F.E. MSE Impact Framework addresses MSE needs

3a. Pure Play: Data-driven Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Merchant Cash Advance
- Factoring and Invoice Finance
- Inventory and Input Finance
- Unsecured Automated Business Finance

3b. Pure Play: Marketplace Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Marketplace Finance

3c. Pure Play: Digital Banking

- Business Model Overview
- C.A.F.E. MSE Impact Framework Overview
- Business Model Canvases for Marketplace, Banking-as-a-Service, and Fully Digital Banks

4. Embedded Finance

- Embedded Finance models are growing in diversity and complexity
- Modular approaches taken by different models
- ▶ Business Model Canvas and C.A.F.E. MSE Impact Framework
- Embedded Finance examples

The promise of Embedded Finance in serving excluded MSEs lies in its ability to seamlessly integrate into the core business products businesses need to succeed (e.g., inventory management, accounting). Doing so has the potential to expand reach and lower

financial services costs for MSEs.



The **C.A.F.E. Impact Framework** explores how overcoming supply-side barriers may lead to better financial inclusion outcomes for customers.

Cost

Potential for lower MSE lending costs originates from lower FSP costs for:

- Customer acquisition, including marketing, sales, distribution, and onboarding by leveraging digital channels and integrating financial and nonfinancial services
- Customer risk assessment that incorporates nonfinancial services/alternate data

Access

Greater reach of financial services by incorporating them into nonfinancial services customers already use

Fit

Greater personalization of products and features through innovative approaches that use alternative data, AI-based analytics, and modular product design

Experience

More seamless and intuitive financial services, thanks to embedded financial and nonfinancial services in familiar digital environments and integration capabilities

Greater user understanding of and comfort with products, thanks to simplified and/or interactive user interfaces

FMCGs and inventory finance

3a. Pure Play: Data-driven Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E.MSE Impact Framework
- Merchant Cash Advance
- Factoring and Invoice Finance
- Inventory and Input Finance
- Unsecured Automated Business Finance

3b. Pure Play: Marketplace Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Marketplace Finance

3c. Pure Play: Digital Banking

- Business Model Overview
- C.A.F.E. MSE Impact Framework Overview
- Business Model Canvases for Marketplace, Banking-as-a-Service, and Fully Digital Banks

4. Embedded Finance

- Embedded Finance models are growing in diversity and complexity
- Modular approaches taken by different models
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Embedded Finance examples



EXAMPLE: PHARMACIES AND INVENTORY FINANCE

Overview

Launched in 2017, Shelflife rapidly established an innovative inventory supply system to target pharmacies in Nigeria and Kenya. The company plans to expand to four additional markets in the next year.

Shelflife provides pharmacies with stock items at your doorstep on a pay-as-you-sell or consignment basis which frees up cash for other business investments.

The company uses its data to advise pharmacies on what to sell. Stock that does not sell is pulled from shelves and delivered to pharmacies experiencing demand. This reduces stock wastage and avoids the chance that expired stock circulates illegally.

By the end of 2021, Shelflife had over 800 pharmacies registered on its platform (600+ in Nigeria, 190+ in Kenya) and served almost 1.5 million clients..

As a SaaS company, Shelflife charges a subscription fee and takes a margin on products it supplies.

Products and portfolio

Pharmacy stock comes on a pay-as-you-sell basis. There is no minimum order and maximum order depends on a pharmacy's historical performance.

The Shelflife app also provides business analytics, increasing the efficiency of inventory management.

Scale

Shelflife provides a welcome link between pharmacies and manufacturers and increases supply chain efficiency. Due to limited competition, the addressable market in Nigeria alone is approximately 5,000 pharmacies and about 19,000 licensed drug shops. With unlicensed outlets at approximately 10–15 times that number, market growth potential shows.



EXAMPLE: FMCGs AND INVENTORY FINANCE

Overview

Tienda Pago developed a mobile-based platform and launched it in Peru in 2014 and Mexico in 2016. The company's core product proposition is a credit line that allows small merchants to purchase inventory on credit from large FMCG companies at time of delivery.

Tienda Pago has eight registered FMCG distributors in Peru and three in Mexico. Solid alignment between FMCG distributors and Tienda Pago is critical to the model's functioning.

The typical MSE client is a sole proprietorship, with 75 percent of businesses female owned (72 percent in Peru, 60 percent in Mexico). Turnover is approximately USD 1,500 per week.

Tienda Pago clients fared relatively well during the pandemic as they were able to refinance inventory as it depleted.

Products and portfolio

Credit offerings range from USD 50–25,000. By Q2 2022, 70,000 registered merchants used the platform's services. Other product offerings include loans for reselling digital payments services (e.g., cell airtime), utility bills, and school fee/ supply loans. Tienda Pago provides over 2,500 daily loans. Embedded NFS offerings include:

- For FMCG companies, the platform allows receivable consolidation, streamlined digital payments collection that eliminates cash-in transactions, and efficiency gains through its online ordering system
- For small merchants, the platform enables direct digital ordering from large FMCG distributors and financial education for merchants

Scale

It is difficult to sustainably reach very small FMCG traders since payment fee transaction costs often have relatively high minimum charges (4 percent in Mexico).

Tienda Pago enables FMCG vendors to pay via WhatsApp (also on feature phones), extending reach through the low-tech approach.

E-commerce + MSE Loans, Ride Hailing + Vehicle Finance

3a. Pure Play: Data-driven Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Merchant Cash Advance
- Factoring and Invoice Finance
- Inventory and Input Finance
- Unsecured Automated Business Finance

3b. Pure Play: Marketplace Finance

- Business Model Overview
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- Marketplace Finance

3c. Pure Play: Digital Banking

- Business Model Overview
- C.A.F.E. MSE Impact Framework Overview
- Business Model Canvases for Marketplace, Banking-as-a-Service, and Fully Digital Banks

4. Embedded Finance

- Embedded Finance models are growing in diversity and complexity
- Modular approaches taken by different models
- Business Model Canvas and C.A.F.E. MSE Impact Framework
- ▶ Embedded Finance examples



EXAMPLE: E-COMMERCE + MSE LOANS

Overview

Founded in 1999, Mercado Libre (MeLi) hosts Latin America's largest online commerce and payments ecosystem. The company now includes six core units: Libre (marketplace), Shops (storefronts), Envíos (shipping), Pago (payments), Crédito (credit), and Publicidad (advertising).

Mercado Crédito (MC) was established in 2017. MC underwrites otherwise excluded customers primarily by relying on customer data from its own platforms (e.g., Libre, Pago). In the process it helps sellers grow, bringing more products to the platform and entwining merchants with MeLi's other financial products, particularly Mercado Pago.

With access to underlying client data on the Libre and Pago platforms, MC has created over 40 different predictive credit models segmented by business sector, products, region, payment behavior, client characteristics, etc.

Products and portfolio

MC offers MSEs cash advances and working capital loans. It has a Buy Now, Pay Later consumer offering on its platform, as well as personal loan and credit card products.

Merchant and buyer credit is available across four markets today – Argentina, Brazil, Chile, and Mexico. In Q2 2022, MeLi's credit portfolio, including MSE and consumer loans, stood at USD 2.7 billion. On the merchant side, MeLi's average loan size is USD 1,000; 80 percent of customers are repeat borrowers and 40 percent of its client base consists of microenterprises.

Scale

MeLi has over 140 million active users on its platforms throughout 18 countries in Latin America and the Caribbean (LAC).

MC can expand to each of those countries by replicating the success of its initial operations, specifically where internet penetration is high and online shopping continues to emerge.



EXAMPLE: RIDE HAILING + VEHICLE FINANCE

Overview

Founded in Nigeria in 2019, Moove provides mobility entrepreneurs around the globe with revenue-based vehicle financing.

Moove partners with leading mobility marketplaces across ride hailing, urban transportation, trucking, and instant delivery – including Uber, for which it is the largest vehicle supply and financing partner in Europe, the Middle East, and Africa (EMEA).

Moove is responsible for driver acquisition, onboarding, training, and vehicle procurement and management. It proactively engages with its customers to ensure they are productive and successful.

Products and portfolio

Moove enables first-time asset owners in the gig economy to become entrepreneurs and build their own businesses through its use of proprietary performance and revenue analytics to underwrite loans. The company offers vehicle financing of up to 100 percent of purchase price for tenures of up to 60 months.

Moove offers a complete package of value-added services, including service and maintenance, insurance, and roadside assistance, in addition to a digital wallet that provides the traditionally unbanked with banking services.

The company is committed to ensuring that at least 60 percent of the vehicles it finances are electric or hybrid and ensuring that at least 50 percent of its customers are women. Moove purchases vehicles directly from OEMs, which allows the company to offer interest rates that are well below those charged by local banks.

Scale

Fewer than 5 percent of all vehicles in Africa are purchased with financing compared to 92 percent in Europe. Vehicle ownership is less than 44 cars per 1,000 people compared to 640 and 840 in Europe and the United States, respectively. Similarly, in Asia and the MENA region, vehicle ownership stands at just 136 and 261 per 1,000 people, respectively.

Moove now operates in 13 cities across Africa, Asia, the Middle East, and Europe. Its customers have completed over 7 million trips in Moove-financed vehicles.

5. CONCLUSION

This section covers barriers to scaling and an approach to overcome those barriers

Challenges and future research

This report focused on four broad categories and several variations of business models that have the potential to scale and to reach underserved MSEs with improved financial services. We deconstructed each business model's mechanics through the business model canvas, highlighting attributes that may help each business model overcome traditional barriers to serving MSE customers. We also described the ways each business model may advance financial inclusion, using the C.A.F.E. MSE Impact framework as a guide.

Despite its promise, however, each business model faces obstacles to fulfilling its potential to reach underserved MSEs. These includes obstacles to:

- Scaling, including adapting technologies to serve low-income customers to financial infrastructure available in each market
- Focusing on providing responsible financial services to excluded and underserved MSEs
- The digital divide's potential to create further distance between financial included MSEs and those underserved or excluded

Each business model faces unique challenges

MODEL 1. Data-Driven Finance				MODEL 2. Marketplace Finance	MODEL 3. Digital Banking	MODEL 4. Embedded Finance
Merchant Cash Advance	Factoring and Invoice Finance	Inventory Finance	Unsecured Automated Business Finance			
<p>Changing habits to move sales to digital channels to generate historical data and determine credit profile</p> <p>Although not required for the model, a moveable asset registry is not available in all countries, rendering the product unsecure</p>	<p>Obtaining data on less formal buyers to undertake proper risk assessment</p> <p>Cost for managing debtor portfolio may outweigh margins for low MSE ticket size</p> <p>Uptake of e-invoicing may be limited and dependent on government regulation</p>	<p>Getting large corporates to partner with innovative fintechs</p> <p>Obtaining recourse mechanisms from large buyers may be difficult (e.g., a “stop supply agreement” when faced with a no repayment scenario)</p>	<p>Obtaining reliable alternate data to make credit decisions</p> <p>Finding employees with data analysis and risk management skills</p>	<p>Obtaining reliable analytical MSE data to make accurate credit decisions</p> <p>Mobilizing enough institutional/individual investors that trust the platform’s credit decision engine</p>	<p>Smartphone uptake, digital infrastructure availability and reliability, and, above all, cash-in-cash-out (CICO) distribution networks</p>	<p>For on balance sheet lenders, having the right risk model to serve the MSE segment</p> <p>For partnership-driven models, striking the right economic model that contemplates high transaction volume and small MSE ticket sizes</p> <p>Finding bank partners that are both willing and technologically capable of integrating</p>

Fintechs also face systemic challenges related to fintech ecosystem infrastructure

CHALLENGES AND THEIR DESCRIPTIONS

Acceptance of digital payments by MSEs. Digital accounts and payments are the gateway to digital credit and other DFS. However, relatively low levels of MSE digitization still prevail in relation to existing attitudes, the prevailing perception of cash, and an evolving regulatory support framework.

Unfair playing field for small innovative providers. Several of the credit models discussed require partnerships on the distribution or the client relationship side (or both). Small fintechs have difficulty negotiating and establishing contractual relationships when dealing with large corporates.

Low credit model penetration due to weak infrastructure. Areas include unequal and/or limited smartphone uptake and access to mobile data, fragmented digital ecosystems with no functional interoperability, and, above all, cash-in-cash-out (CICO) distribution networks.

Uncertain data protection rules. Uncertainty around data protection rules can be an obstacle to both fintechs and their MSE clients.

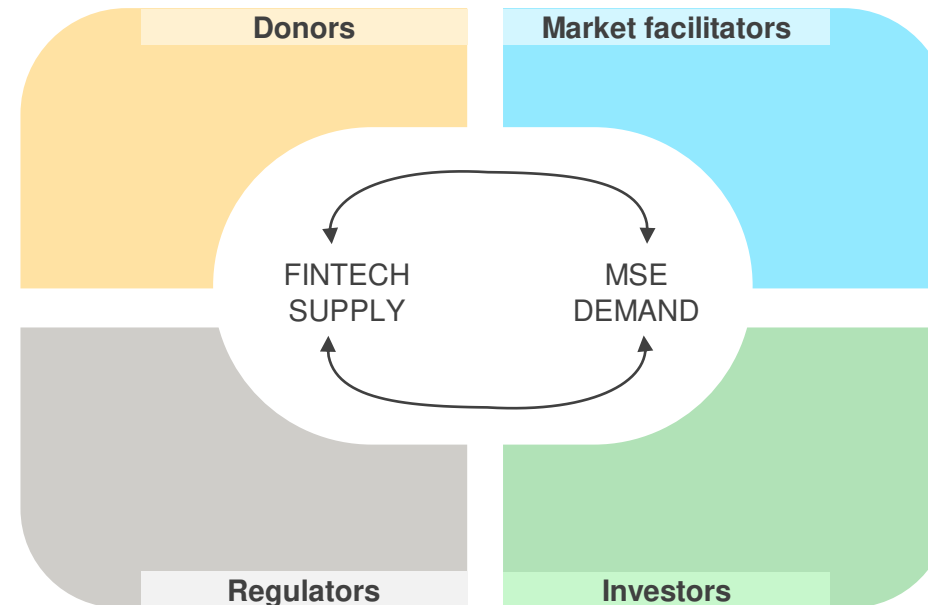
MSE informality. MSEs wary of the heavy tax burden that comes with formality may avoid digitizing or availing themselves of digital tools if special consideration for smaller firms does not exist.

General MSE finance challenges. In addition to the previously discussed challenges specific to innovative business models, fintechs face the same challenges as any MSE finance business, including availability and affordability of wholesale finance, regulatory burdens, and human capital.

Responsibly addressing these challenges requires a systemic approach among multiple stakeholders

While CGAP's research reviewed promising technology-enabled business models and their associated barriers, further research is required to identify the best solutions for overcoming them. Despite the specifics future research may identify, a Market Systems Approach will be required to enable these nascent business models to realize their potential to responsibly close the MSE finance gap – now estimated at almost USD 5 trillion.

The market systems approach relies on all actors – both private and public – to develop holistic interventions that lead toward systemic change rather than a piecemeal approach.



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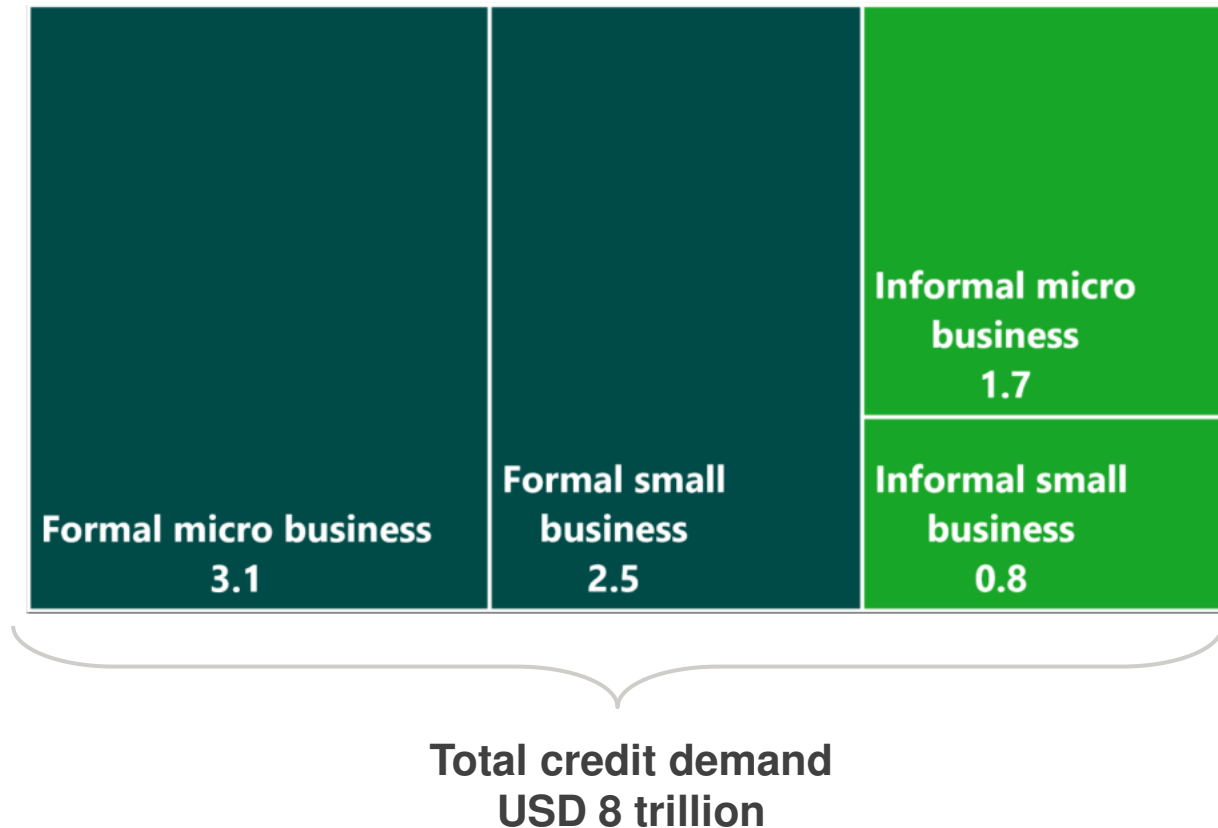
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APPENDIX

Credit demand assumptions

Credit demand by type of business, in USD trillions



A solid 40 percent of informal MSEs and 55 percent of formal MSEs demand credit products. Formal MSE credit demand is presumably higher as a result of their more sophisticated business practices and approaches.

A function of sales, credit demand ranges from 20 to 30 percent of total sales (sector dependent). As a result, average credit demand for small businesses is higher than that of micro businesses.

Credit demand is highest in East Asia, with USD 3.94 trillion in unmet demand. Latin America follows, with USD 1.6 trillion in unmet demand.

The East Asia credit demand figure is primarily driven by China's large domestic market and the high share of small vs micro businesses in this market.

Latin America and the Caribbean's high credit demand is due to its proportionately greater share of small vs micro businesses compared to other emerging markets such as South Asia and Sub-Saharan Africa.

Potential benefits of technology enablers for MSMEs

Summary of potential benefits of technology or innovation for MSMEs

Cloud computing

- Cost savings reduces both capital costs and operating costs
- Faster application development and implementation reduces time to market
- Greater cybersecurity and reliability: Data backup, disaster recovery, and business continuity

Blockchain / Digital Ledger

- Better SME targeting: Time stamp/immutable records provide identity credentials that reduce loan risk
- Trade finance potential: Mechanism to better track trade process (e.g., shipments, customs) and increase finance
- Broadened access to finance capital by issuing tokenized securities on the blockchain

Internet of things (IoT)

- Operational efficiency: Better customer understanding to deliver enhanced and customized services

- Better prediction of inventory levels, energy management, and other needed supplies

Mobile phone / Internet connectivity

- Foundation for digital financial product delivery to MSMEs, many of which are in rural sectors and locales where established financial intermediaries are not widely present

Big data analytics

- Better understanding of business processes, client needs, and overall market characteristics
- Can be used to improve assess business creditworthiness
- Can help to improve anti-fraud measures and support customer due diligence

Artificial intelligence / Machine learning

Can unlock value in combination with alternative data to help algorithmically predict risk management decisions

- Improves credit scoring models to further unlock MSME financing

- Can help strengthen Anti Money Laundering and Counter Terrorist Financing (AML/CTF) regulatory compliance costs and fraud losses

APIs

- Allow fintechs to provide MSMEs with customized digital products and services
- Can be used to provide trustworthy digital identity solutions for customer identification/verification for onboarding and customer authorization access procedures

QR codes

- Enable MSMEs to accept digital payments without the need to purchase expensive PoS or electronic data capture terminals
- Use does not require high levels of financial education or technical sophistication

Fintech taxonomy and classification

Category	Fintech vertical / Business model	Sub-verticals / Business models included
RETAIL FACING (CONSUMERS, HOUSEHOLDS, and MSMEs)	Digital Lending	P2P/Marketplace Consumer Lending, P2P/Marketplace Business Lending, P2P/Marketplace Property Lending, Balance Sheet Consumer Lending, Balance Sheet Business Lending, Balance Sheet Property Lending, Debt-based Securities, Invoice Trading, Crowd-led Microfinance, Consumer Purchase Financing/Customer Cash Advance, Digital Merchant Cash Advance Solutions
	Digital Capital Raising	Equity-based Crowdfunding, Real Estate Crowdfunding, Revenue/Profit Share Crowdfunding, Reward-based Crowdfunding, Donation-based Crowdfunding
	Digital Banking	Fully Digitally Native Bank (Retail), Fully Digitally Native Bank (MSME), Marketplace Bank (Retail), Marketplace Bank (MSME), Banking-as-a-Service (BaaS), Agent Banking (Cash-in/Cash-out (CICO))
	Digital Savings	Digital Money Market/Fund, Digital Micro Saving Solutions, Digital Savings Collective/Pool, Software-as-a-Service (SaaS)
	Digital Payments	Digital Remittances (Cross Border–P2P), Digital Remittances (Domestic–P2P), Money Transfer (P2P, P2B, B2P, B2B), eMoney Issuers, Mobile Money, Acquiring Service Providers for Merchants, Points of Access (PoS, mPoS, on-line PoS), Bulk Payment Solutions: Payroll, Grants, etc., Top-ups and refill, Payment gateways, Payment aggregators, API Hubs for Payments, Settlement and clearing services providers
	InsurTech	Usage-based, Parametric-based, On-demand Insurance, Peer-to-Peer Insurance, Technical Service Provider (TSP), Digital Brokers or Agent, Comparison Portal, Customer Management, Claims and Risk Management Solutions, IoT (including telematics)
MARKET PROVISIONING	RegTech	Profiling and due diligence, Blockchain forensics, Risk Analytics, Dynamic Compliance, Regulatory Reporting, Market Monitoring
	Alternative Credit and Data Analytics	Alternative Credit Rating Agency, Credit Scoring, Psychometric Analytics, Sociometric Analytics, Biometric Analytics
	Digital Identity	Security and Biometrics, KYC Solutions, Fraud Prevention and Risk Management
	Enterprise Technology Provisioning	API Management, Cloud Computing, AI/ML/NLP, Enterprise Blockchain, Financial Management and Business Intelligence, Digital Accounting, Electronic Invoicing

Note: Table shows selected categories. Original taxonomy includes other categories (e.g., Digital Asset Exchange, Digital Custody, Wealth Tech) we consider less relevant to the MSE segment.
Source: CCAF (2020)