Digital Financial Services Ecosystems: Underpinning the Potential for Livelihood Transformation in Urban Areas

January 31, 2020

VISA everywhere you want to be

I. Summary

There are clear macroeconomic advantages to digital financial inclusion. Studies show that digital payments and other financial services can boost GDP growth and create jobs.[1] Additionally, digital financial inclusion can generate time and cost savings for consumers and businesses, increase efficiencies in government functions, boost government revenues[2] and decrease crime.[3] It can contribute to progress toward many of the United Nations Sustainable Development Goals.[4]

During the past six years, financial inclusion has increased around the world, often significantly. Generally speaking, basic access to financial services has grown first in urban areas, then expanded to rural areas. Now, access in rural areas is growing closer to national averages.[5] Despite this progress, urban areas still tend to be ahead of rural ones, with more diversity in providers and use cases. Some countries are seeing the emergence of an "*inclusive digital financial ecosystem*" in urban areas, where there is broad-based usage and range of financial services, as well as an interconnectedness among those services.

The existence of such ecosystems can be a foundation for increased incomes and poverty alleviation by transforming livelihoods and providing new forms of work. The key drivers for these ecosystems are what we now know to be the foundations of financial inclusion — a widely accessible identification system, branchless banking and the essential element of interoperability. These drivers can then combine with data-driven analytics to advance e-commerce and omni-digital platforms, which in turn can release the potential of household-level poverty alleviation.

This paper begins with a background on inclusive digital financial services ecosystems, including the drivers and pathways to financial inclusion. It then introduces the efficiency improvements versus transformative livelihood impacts that can arise from digital financial inclusion. It concludes by reinforcing how critical these ecosystems now are to improving individual incomes and livelihoods and highlighting policy considerations to advance these goals.

An "inclusive digital financial ecosystem" can be a foundation for increased incomes and poverty alleviation by transforming livelihoods and providing new forms of work.

[1] See McKinsey Global Institute (September 2016) *Digital Finance for All: Powering Inclusive Growth in Emerging Economies*, and Moody's Analytics *The Impact of Electronic Payments on Economic Growth* (2016)
[2] Visa (2017) *Cashless Cities: Realizing the Benefits of Digital Payments*
[3] Skilling, L. & Rogers, C. (2017). *Crime prevention and coping mechanisms in neighbourhoods: insights from Kibera, Nairobi.* Crime Prev Community Saf, 19(2), 103–121.
[4] Better than Cash Alliance *Igniting SDG Progress through Digital Financial Inclusion*, 2018.
[5] Authors' calculations from the World Bank Group (2017) *The Global Findex Database* as well as country data such as the National Council for Inclusive Finance (DNKI) Financial Inclusion Insights Indonesia 2018.

II. Urban areas and the emergence of inclusive digital financial services ecosystems

A. What does an inclusive digital financial services ecosystem look like?

An inclusive digital financial services ecosystem demonstrates three concurrent conditions: access to a range of financial services, usage across a range of digital financial services, and interconnectedness among different types of financial services and providers.

Singapore is a good example of a country that is successfully growing a digital financial services ecosystem in a highly urbanized context. It is a digitally advanced city with strong digital infrastructure.[6] Virtually all the population has a formal financial account as well as a debit card. Nearly all citizens older than 15 years old (90%) made or received a digital payment though an account in the last year (as of 2016).[7]

[6] Visa (2017) *Cashless Cities: Realizing the Benefits of Digital Payments*
[7] The World Bank Group (2017) The Global Findex

More recently, the elements of a digital financial services ecosystem have continued to grow. In July 2017, seven Singaporean banks introduced PayNow in order to facilitate account-to-account transfers using a mobile phone or ID number rather than bank account numbers. PayNow transacts S$1 billion (USD 740 million) per month.[8] In 2018, the Monetary Authority of Singapore (MAS) introduced the Singapore Quick Response Code (SQRC), which is based on the global EMVCo standard. The SQRC connects nine international payment companies including Visa, seven banks, 32 wallet providers and four government agencies.[9] This single common QR code means much simpler processes for merchants to accept payments and better consumer experiences. In 2019, the Land Transport Authority introduced SimplyGo to enable contactless digital payments on trains and buses.[10] (See Box 1.)

Singapore's success in rapidly introducing interoperable digital financial solutions reflects the willingness of MAS to foster investment, innovation and competition in the financial sector. MAS has actively promoted a regulatory sandbox approach for fintech entrants, which has reportedly spurred innovation and made regulatory authorities better able to respond to the potential risks technology brings to the financial system.[11] MAS is also opening up the banking industry to new competition with digital bank licenses.[12] Since 2016, virtually all citizens have had a unique biometric identification connected into MyInfo, a consumer e-KYC platform that a broad array of banks, payment, insurance and fintech providers use for identity verification.[13] MAS, in collaboration with the InfoComm Development Authority, also supports the Business Sans Borders (BsB) initiative — a cross-border, open connector of platforms (a "meta-hub") that enables payment integration between small and medium enterprises domestically and internationally.[14,15]

Singapore is a good example of a country that is successfully growing a digital financial services ecosystem in a highly urbanized context.

[8] As of November 2019. November 13, 2019 speech by Mr. Ravi Menon, Managing Director, MAS at BIS-World Bank Roundtable on Impact of Technology on Financial Inclusion and Financial Stability.
[9] The SQRC is based on the QR Code Specification "QR Code Specification for Payment System – Merchant-Presented Mode" issued by EMVCo, which has the benefits of international interoperability, multi-tenancy of QR schemes and non-sensitive data presented for payments. See https://www.mas.gov.sg/development/e-payments/sgqr?#_sgqr-partners
[10] For more details, see https://simplygo.transitlink.com.sg/
[11] IMF (July 2019) *Singapore Technical Note: FinTech: Implications for the Regulation and Supervision of the Financial Sector.* IMF Country Report 19/229.
[12] Ting, Choo Yun (January 7, 2020) "21 applications submitted for up to 5 Singapore digital bank licenses: MAS", *The Straits Times.* https://www.straitstimes.com/business/banking/21-applications-submitted-for-5-singapore-digital-bank-licences
[13] For more details, see https://www.singpass.gov.sg/myinfo/common/aboutus
[14] November 13, 2019 speech by Mr Ravi Menon, Managing Director, MAS, at BIS-World Bank Roundtable on Impact of Technology on Financial Inclusion and Financial Stability. https://www.mas.gov.sg/news/speeches/2019/financial-inclusion-and-innovation-retaining-the-customer
[15] For more details, see https://www.mas.gov.sg/development/fintech/business-sans-borders

Box 1: Visa and urban transportation in Singapore

Singapore's public transportation system is an integral part of the government's strategy to create a "smart nation." Used heavily by residents and tourists, Singapore's transportation system is one of the most affordable urban systems around the world.[a] The system's integration and ease of use factor into this. It benefits users, the government and economic activity and is building an inclusive digital ecosystem.

Visa has been working closely with the Singapore Land Transportation Authority (LTA) to introduce interoperable "tap to pay" fare payments across all public buses and trains in Singapore. In April 2019, the LTA introduced SimplyGo, a contactless transit payment solution that is enabled for a number of payment schemes.[b] For commuters, using contactless payments brings greater speed and convenience to their journeys and eliminates the need to carry multiple cards or top up dedicated travel cards. In just six months, LTA became the top merchant contributing to the growth of mobile/wearable payment transactions for Visa in Singapore. Enabling acceptance for transit has also led to more usage of contactless payments, specifically mobile payments — exemplifying how frequent use becomes an inflection point in digital transactions overall.

Singapore LTA and Visa at a Glance:

One of Visa's largest open loop transit programs

USD 2.10
Average ticket size

30,000+
Acceptance touch points

5,400
Buses

42
Light rail transit stations

Urban mobility plays a key role moving people for work, education, entertainment and daily lives and is inextricably linked to economic output and human livability. As the world's population becomes more urbanized, pressure for urban mobility continues to build. Urban mobility is especially important for lower income workers, who frequently commute, as well as helping to reduce road congestion. The Singapore government's partnership with Visa illustrates how public and private providers collaborate to address these goals, including specific transit challenges from fare evasion to station overcrowding to reducing carbon emissions through the use of digital data insights, for example.

Visa's urban mobility initiatives in Singapore and around the world aim to serve all of society, including pensioners, veterans and the unemployed, to meet their last mile of transportation needs. In many cities, getting from home to work, store or school involves several modes of transportation.

[a] Compared to 24 other cities. McKinsey & Company, June 2018, *Elements of success: Urban transportation systems of 24 global cities*. Found at https://www.mckinsey.com/business-functions/sustainability/our-insights/elements-of-success-urban-transportation-systems-of-24-global-cities
[b] For more details, see https://simplygo.transitlink.com.sg/

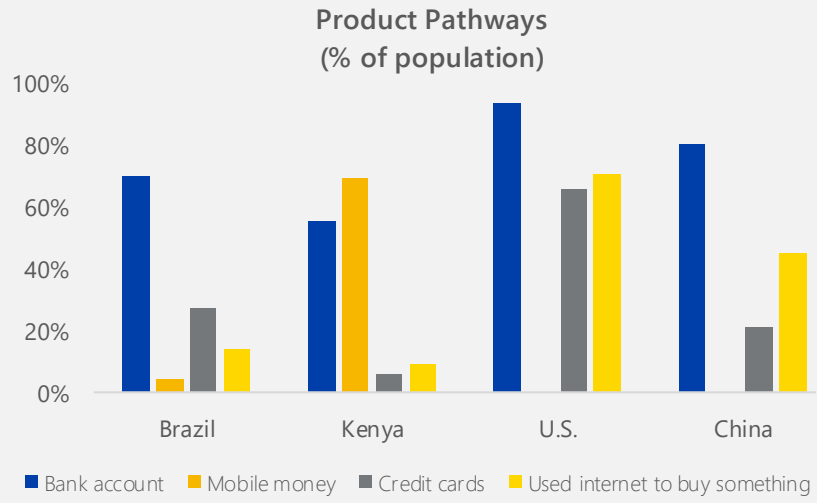
III. The foundations of inclusive digital financial services ecosystems

Digital financial services ecosystems and financial inclusion are inextricably linked. Access to and use of financial services generally starts in cities and then expands to rural areas, following different pathways. Two drivers are particularly important for building the foundations of financial inclusion: a unified, digital and efficient system of identification and the expansion of branchless banking. When these drivers are in place, interoperability can then enable additional elements, such as data analytics, to scale and power the ecosystem.

A. Different pathways to financial inclusion

The past six years have brought significant scale in financial inclusion around the world, but this scale has not materialized in any one way or sequence. Rather, countries have realized it through different pathways. (See Chart 1.) In Latin America, as exemplified by Brazil, banks led financial inclusion mostly through agent banking. In East Africa, particularly Kenya, mobile money expanded financial inclusion, enabled through the rapid takeover of mobile phone usage. In developed countries such as the U.S., use of digital financial services and financial inclusion has expanded through debit, credit and prepaid card products. Typically, countries first scale financial access, which then supports expansion of e-commerce and omni-platforms. In China, however, e-commerce platforms have helped lead access to and use of digital payments and other financial services.[16]

Chart 1: Pathways to Financial Inclusion: Access to Financial Products



Source: World Bank Group Global Findex 2017

[16] According to the World Bank Group Global Findex 2017, China has a highest percentage (85%) of those who paid online (compared to cash on delivery) when making online purchases, compared to the high-income country average of 66%.

The countries in Chart 1 are at different stages of approaching an inclusive digital financial services ecosystem. In the U.S. and China, there is now a high frequency use of diverse digital financial services. In Brazil and Kenya, there is still a concentration in only a few, dominant use cases; interconnectedness among a breadth of digital financial services is only slowly emerging. All pathways reflect a consistent pattern of growing access and use in cities and then expanding to rural areas.

B. Two key drivers of financial inclusion

Unified, digital and efficient identification

Identity is one of the biggest prerequisites for the expansion of digital financial services and affects all stakeholders. Proving identity is one of the most common barriers to low-income people and small business owners opening and using financial accounts, together with providing other required information such as legal proof of address. Meeting these know-your-customer (KYC) requirements is a significant component of costs for providers, and these costs often get passed on to consumers. Government authorities have significant concern for the integrity of the financial system, including that KYC requirements are met as part of transaction monitoring and security.

In the past six years, regulatory innovations and expansion of risk-based regulatory approaches have made it faster and easier for more citizens to have access to formal financial services. In particular, wider use of tiered financial accounts, with accompanying steps of risk-based KYC requirements, has had a profound positive impact. Electronic-KYC regulations and laws have enabled people to open and access accounts outside of financial institutions altogether. With more access comes more use. For example, since it was introduced in 2013, the Visa-backed OXXO Saldazo account in Mexico has reached more than 11 million customers. This account is the first formal financial product for 42% of its users. Its success is made possible by the ease of opening the bank-backed account at this chain of 24/7 convenience stores — within five minutes and with easily met basic identity information under a risk-based regulation. It is low cost and can be used in many ways and places.[17]

At the same time, governments recognize the benefits of identification as a key enabler of economic and social opportunity, as well as government efficiency and transparency. Diverse policies and initiatives are expanding the number of citizens who can meet national legal standards of identification. Governments are also transforming identification from traditional methods to digital ones. As they do, they increasingly recognize that public and private sector collaboration creates the best approach to provide advanced and secure identities for user choice and to foster innovation and create interoperability. Coupled with the financial regulatory innovations above, this is a game changer.

[17] Femsa, *Informe Annual 2018* and Visa internal data (2019)

Branchless banking

Branchless banking is the delivery of financial services outside conventional bank branches using nonbank retail agents and often leveraging information and communications technologies. It is fundamental in its impact on affordability and ease of access. First, branchless banking radically reduces the cost structure of serving customers, especially middle- and low-income customers and those outside urban centers. A customer transaction at a conventional bank branch costs between $0.70 and $1.00, but only $0.30 to $0.60 at a bank agent.[18,19] Second, it brings financial services to places where people live and work, increasing proximity and convenience.

Branchless banking requires enabling financial regulation. The rate of its adoption can be greatly accelerated through complementary policies, such as disbursement of government payments and payment of government services and fees through agents. For example, branchless banking is recognized for bringing a financial access point to every one of the 5,567 municipalities in Brazil.[20] The ubiquity of access in agent networks lays a foundation for the expansion and scale of digital financial services — and the emergence of ecosystems.

C. Drivers of digital financial services ecosystems

While mobile money is key to financial inclusion in some developing countries, including those with weaker mainstream financial services,[21] more often a robust banking and payment infrastructure is the bedrock of growing an inclusive digital financial services ecosystem. Moreover, financial service incumbents provide much of the infrastructure and norms on which new use cases are built — and are driving some of these trends and related partnerships. For example, interoperability first started between banks and has now expanded to non-bank financial services providers and new fintech entrants.

Interoperability

Interoperability ensures all products and services, issued under the requirements of a payment system, are accepted. This provides for a consistent end-user experience for consumers and the confidence of being able to access their funds or line of credit easily and securely from anywhere.

In other words, interoperability allows a person or business to use their card, mobile wallet, bank account, payment acceptance device or QR code where payments are offered, regardless of who provides them. Enabled by standards and a level of commonality, interoperability can also reduce the cost of investment for providers, encourage merchants to accept digital payments, and promote fair competition among all payment service providers and players.

[18] CGAP (2013) *Advancing Financial Inclusion through Use of Market Archetypes* CGAP Focus Note. Note that these estimates are based on several Latin American examples of branchless banking.

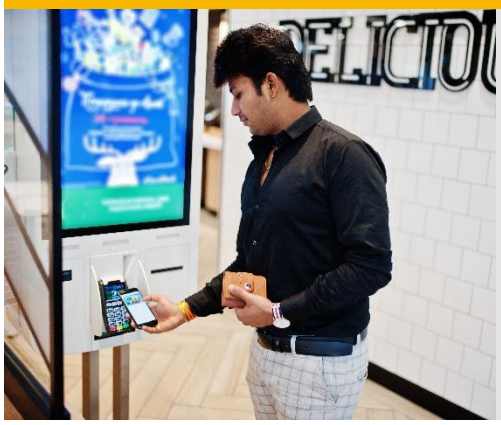
[19] The implications of this cost reduction to realistically providing access at scale are profound. In 2009, for Kenya to reach the same proportion of customers as a middle-income country, it would have required a capital expenditure of $2 billion, six times the pre-tax profit of the entire Kenyan banking sector. Pickens, Porteous and Rotman (2009) *Scenarios for Branchless Banking in 2020* CGAP Focus Note number 57.

[20] CGAP (2008) Note on Regulation of Branchless Banking in Brazil. Brazil long allowed banks to use small merchants (*correspondentes*) to do certain transactions, such as accept loan applications and repayments, to help facilitate the spread of microcredit. Then, between 1999 and 2003, the regulator increasingly relaxed rules around agent banking.

[21] ITU. (2013). *The Mobile Money Revolution - Part 2: Financial Inclusion Enabler* (ITU-T Technology Watch Report) (pp. 1–23).

Early digital payment schemes, including mobile money, were often introduced as a closed loop system, for a variety of reasons. Being able to exchange information between two or more systems, however, achieves convenience and grows the number of use cases, transactions, types of transactions and total number of users. There are also different degrees of interoperability[22] between the same products but different providers, between different products and different institutions, between ATMs and agents, and even between different use cases.

One clear trend in urban areas with dynamic digital financial ecosystems is a progression toward full interoperability. While there are many ways to initiate interoperability and toward greater interconnectedness, one of the biggest jumps in digital use cases occurs when formerly closed or semi-closed omni-platforms, with lots of registered customers around a specific purpose, partner with payment and financial service providers.



One clear trend in urban areas with dynamic digital financial ecosystems is a progression toward full interoperability.

Increasingly data-driven financial services

The more interoperability that exists in a financial system, the greater the potential for data-driven analytics to power scale through increased integration with communications, social media, marketing services and applications. Alternative use of data is also driving the design of new financial products and distribution for low-income customers, as well as increasing efficiencies and revenue streams for providers.

Data is making a difference for financial service providers — and thus for products and people — in two major ways. First, there is increased use of customer data for segmentation and product design. By analyzing all kinds of digital data, providers can better understand preferences and trends of specific groups of customers. They can then use this segmentation to improve products, respond more nimbly to customer needs and create stronger customer relationships.

[22] AFI Mobile Financial Services Working Group (2014) *Mobile Financial Services: Assessing Levels of Interoperability* Guideline Note No. 15.

Providers are now making efforts to collect useful data and put it into a format to create algorithms that generate quick feedback to sales teams and the business overall. Second, new algorithms are leveraging alternative data to assess credit-worthiness. Providers are increasingly finding new ways to offer loans to "thin file" customers without a strong credit history. In both cases, algorithms often use both proprietary company data and data from partners.

Sophisticated data analytics are powered by more data, and this is generally coming through the sharing of data among multiple players. This raises numerous challenges, including concerns about security, financial accountability, data rights and consumer privacy. The proliferation of data-enabled quick loans is also giving rise to concerns about new over-indebtedness among lower-income populations. Government policy makers and providers should work together to actively address these considerations.

Box 2: New lending models: the spread of digital credit in Kenya

In Kenya, digital data has enabled banks, mobile money operators and others to assess and deliver loans much faster–sometimes almost instantly. Lenders such as M-Shwari and KCB-M-Pesa use diverse sources of digital data to score customers for potential loans, including mobile money transactions, activity on social media, credit and financial history, and other personal information. Digital credit serves more than 35% of adults who own a mobile phone in Kenya.

The rise of smartphones is especially impactful. Branch, a fintech startup, leverages data from borrower smartphones to provide fast and convenient business loans. Its alternative data scoring models use handset details, SMS logs, repayment history, GPS data and contact lists, all obtained with prior permission from the borrower.[a] As with other digital lenders, borrowers repay through the phone.

Recent research has revealed that digital credit can bring risks and unintended consequences for consumers. Nonperforming digital loans in Kenya are approximately three times higher than traditional loan products. 2.2 million individual Kenyan borrowers have not fully repaid digital loans taken between 2016 and 2018. About half of those nonperforming loans are for outstanding balances of less than $10 — small amounts of money that ultimately may come back to haunt the borrower and credit provider alike.[b]

[a] In April 2019, Branch signed an agreement with Visa that allows borrowers to withdraw funds from ATMs using virtual Visa credentials.
[b] MSC, 2019, Making Credit Truly Responsible: Insights from analysis of digital credit in Kenya.

IV. Efficiency and transformation in livelihoods through digital financial services

When the above drivers align, the resulting digital financial services ecosystem can generate efficiencies and even transform individual livelihoods and small businesses.

The role of digital financial services on welfare, health, education and other aspects of social and economic development is well recognized, including in the Government of China's 13th Five-Year Plan and the Development Plan for Advancing Inclusive Finance Development (2016-2020), National Rural Revitalization Strategy and the G20 High-Level Principles for Digital Financial Inclusion. There are numerous case studies and research examples demonstrating how digital payments save people and businesses money, time and other resources. This drives efficiency gain. For example, it allows a small merchant to keep their shop open for the time that they otherwise would need to go to a bank or other places to pay bills in person.[23] Accepting digital payments also enables businesses to add new products and services to their store, like mobile airtime top-up or bill pay services, and add another stream of income. This, in turn, increases their revenue. For example, Grupo Bimbo worked with small retailers in Mexico to help them adopt digital payments. Sales revenue increased by up to 20-30% for participating merchants.[24] These efficiency and opportunity gains improve the margin of businesses, although the business fundamentally operates in its existing profit parameters.

Accepting digital payments enables businesses to add new products and services to their store, like mobile airtime top-up or bill pay services, and add another stream of income.

[23] This is exemplified by how quickly shopkeepers switch loan repayments to a time in the middle of the day when they are offered cashless repayments. See OPTIX (December 2018) *Pioneering Cashless Microfinance in Bangladesh.*

[24] Rendon, 2014 as in *Igniting SDG Progress Through Digital Financial Inclusion*, Better than Cash Alliance, September 2018

With the rise of e-commerce and omni-digital platforms, we are seeing several potential paths where an inclusive digital finance ecosystem ignites the potential for a transformation in livelihoods. One path is through the creation of jobs. Evidence is building that workers for e-commerce and omni-platforms are increasing and providing increasingly important income streams to households. The Insights to Impact (i2i) Initiative assessed 277 e-commerce platforms in eight African countries and estimated that these have created 4.8 million jobs (as of November 2018). These platform workers say that 44% of the income they generate through this work is essential to meeting basic needs. Women and men are both well connected to the digital world: most are likely to own a smartphone and have access to mobile money and access to an account.[25]

Box 3: When can efficiency gains from digital financial services become transformative for small businesses?

Yasmin lives on the outskirts of Jakarta with her disabled husband, six-year-old daughter and brother. She is the sole supporter of her family, making fried chicken, which she sells out of her house to neighbors. Her business does okay on a small scale. Her revenues are $350 per month, and she spends $176 on raw materials. She makes a profit of $194 per month — a profit margin of 55%. This is better than many similar retail micro businesses, which struggle to cover costs. The profit, however, is barely enough to cover the household's expenses of $192 per month. Yasmin tries to save, but she struggles in her business with cash flow and usually draws down any savings to keep the business going.[a]

Since Yasmin shared her story in 2013, new opportunities have taken off in Jakarta, including digital payments and small-scale food order and delivery services through omni-commerce platforms like Gojek and Grab. Digital payments alone can increase the profit of the business through efficiency and some increased sales; these platforms can radically alter the scope of her business.

Diagram 1 illustrates the potential impact to Yasmin's revenue and income, based on data from comparable experiences when digital payments and platforms expanded into Jakarta and similar cities. If Yasmin uses digital payments on her phone, she can immediately pay for and secure chicken parts 20% cheaper.[b] This alone would increase her profit to $225 per month and her profit margin to 64%. Small amounts of savings would give her a buffer against shocks but not enough to invest and expand her business. This is helpful but not transformative for her family as they are still under $1 per person per day.

Diagram 2 shows that Yasmin can leverage the opportunity of food delivery with Gojek and Grab. Food sellers in Jakarta have reported that their revenues can quadruple.[c] If Yasmin were to follow the same pattern, her revenue would increase to $1,400 per month. Even with the same profit margin of 64%, her monthly profit increases to $500, giving her an extra $300 per month to spend on her family and to save. Her family is now at $4 per person per day and in a position to improve their income even further through investments in the business. This is transformative.

Sources:

[a] Yasmin's income and financial flows were collected in field interviews during research for GSMA (2013) Unlocking the Potential: Women and Mobile Financial Services in Emerging Markets.

[b] Little evidence exists for how much mobile money increases profits for small businesses, but Kikulwe, Fischer and Qaim (2014) Mobile Money, Smallholder Households and Household Welfare in Kenya, PLoSOne 9(10) estimated that mobile money increases profits for smallholder farmers by 40%. We therefore take a more modest estimate in our example above.

[c] See reports of estimates in food-seller sales from a Gojek-sponsored event in Lee, Y. and Suharton, H. (September 4 2019) Grab and Gojek square off in an international food fight Bloomber.com.

[25] Insights2Impact (2018) *African digital platforms and the future of digital financial services*

Diagram 1:
Yasmin's **potential efficiency gains** from using mobile money

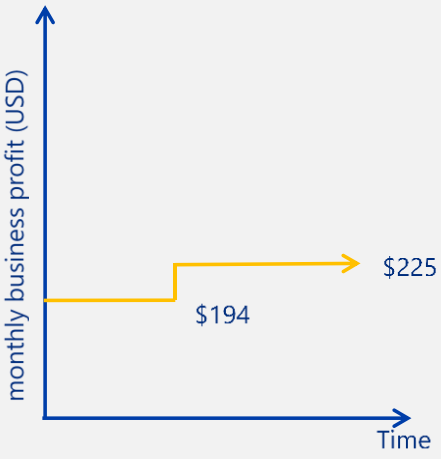
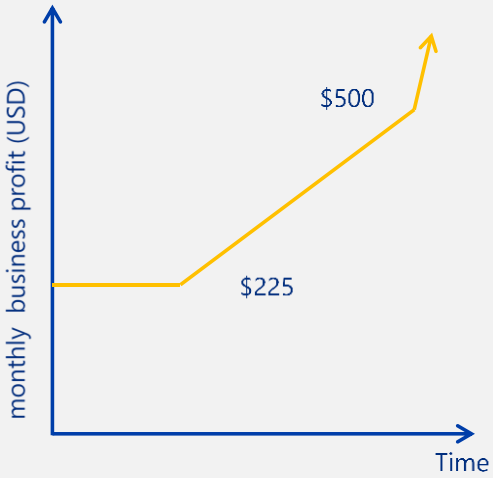


Diagram 2:
Yasmin's **potential business transformation** from the Gojek/Grab platforms



Yasmin cooks and sells fried chicken from her home on the outskirts of Jakarta. Her monthly profit is about $194. If she begins to use mobile money to source and pay for better and cheaper chicken, the efficiency in her business will improve, and her monthly profit will marginally increase to $225. But if she also begins to sell through Gojek and Grab, she could transform her monthly profit to $500, which gives her enough capital to invest and improve her business even further.

Cautionary tales of growing e-commerce and omni-digital platforms

There is so much potential for economic and livelihoods transformation that can come with the growth of a digital financial services ecosystem. There are also risks as e-commerce platforms "grow up." For example, since 2006 Etsy has created a virtual marketplace where individual artisans can market and sell their handmade goods. It became transformational for many artisans, providing reach to buyers far beyond their immediate location and fueling sales and often significant business expansion. In 2013, Etsy began to allow manufacturers to sell on the platform. Increasingly, mass-produced goods drove down prices and crowded out the independent artisans and small businesses.[26] Similar challenges have emerged with Airbnb and other asset sharing platforms. In the virtual marketplace for services, initially attractive fares brought workers into the ride-sharing driving business. Companies then began to slash prices, and drivers had to work much longer hours to make the same income. Drivers in emerging markets were particularly impacted as many do not own their vehicles and the costs to rent cars for the day did not decline.[27]

[26] Dobush (2015) *How Etsy alienated its crafters and lost its soul Wired* Magazine
[27] Zollmann and Morawczynski (2019) *Your ride hail driver is waiting for a raise.*

Box 4: Typologies of e-Commerce platforms

Popular e-commerce and digital platforms in urban areas are helping individuals and businesses improve earnings in several ways:

1. Creation of virtual marketplaces
   - Sale of goods — for example, *Amazon*, *Alibaba*, *Jumia*
   - Provision of services — for example, *ride-hailing (Uber, Lyft) and cleaning services (HelpOga)*
   - Use of assets — for example, *Airbnb*, *Hello Tractor*

2. Creation of new jobs to make these platforms function and new industries supporting them
   - Packing hourly jobs at central warehouses for sale of goods
   - Car washes and mechanics for cars and motorbikes used in ride-hailing

Sources: Insights2Impact (2018) African Digital Platforms and the Future of Digital Financial Services; BCG (2019) How online marketplaces can power employment in Africa.

V. How to encourage expansion of an inclusive financial services ecosystem to rural areas

While basic access to financial services in rural areas has grown closer to national averages in the last six years, urban areas still far outpace rural ones in the emergence of a highly dynamic digital financial services ecosystem.

Countries that have not fully succeeded in extending usage of digital financial services to rural populations are frequently challenged by weak or uneven commercial networks on which to build branchless banking. The lack of identification is another common challenge. This stands to reason as rural populations are less likely than urban ones to have a formal ID, and therefore to be able to meet enrollment requirements.[28] National policies to expand access to identification, coupled with risk based KYC regulation, tiered financial accounts and digital identification, can help to advance rural access to financial services.

A common next-level challenge is connectedness. Even in those rural communities with high levels of basic financial account ownership, access tends to be to discrete products. By and large, products are not yet interconnected or integrated seamlessly into purchases and activities in the way they are in urban areas. Even in the United States, rural community banks are less digitally enabled, despite much of the population around them being digitally active.[29]

[28] World Bank. 2018. *Global ID Coverage, Barriers, and Use by the Numbers: Insights from the ID4D-Findex Survey (English). Identification for Development*. Washington, D.C.: World Bank Group.
[29] Frank, B (2019) *How Community Banks Can Leverage Their Greatest Strengths in the Digital Era,* Payments Journal.

The livelihood changes discussed above are, so far, mostly an urban phenomenon. Where platforms are well-developed, there is evidence of positive spill-over to semi-urban areas. In the U.S., for example, the platform economy has been around long enough to enable robust analysis of the effect on jobs. Michael Mendel of the Progressive Policy Institute used Bureau of Labor Statistics data to identify that, in the United States, 400,000 jobs were created in warehouse fulfillment between 2007–2017, while retail has lost 140,000 over the same period. In addition, these jobs pay on average 50% more than retail jobs in the same state.[30] This impact has been most felt in low-density large towns with populations between 10,000 to 100,000, which have just under 20% of the adult population living below the poverty line.[31]

VI. A new era of digitally enabled livelihoods highlights the importance of digital financial services ecosystems for poverty alleviation

2020 is ushering in a new era of financial inclusion. During the early days of microcredit in the 1990s, the mono-lens of loans shaped the connections among financial services, livelihoods and poverty alleviation. At the turn of the century, this gave way to an understanding that payments, savings and other financial services also matter to financial inclusion and socioeconomic development. The success of branchless banking as a customer service and business model in Brazil inspired visions that promoting financial inclusion could also lead to business success and sustainability. The rapid takeoff of mobile money in Kenya, starting in 2007, highlighted new opportunities to bring people into digital payment platforms by continuing to leverage emerging technologies. Both of these innovative financial service models revealed the potential of efficiency gains to reduce costs and increase incomes for individuals and businesses.

Today, the advance of an inclusive digital financial services ecosystem has paved the way for commerce-driven virtual marketplaces in goods, services and asset sharing. It is this combination that holds the potential to transform livelihoods. This paper highlights the possibilities and risks of this dynamic environment. Public and private stakeholders can continue to look to China and beyond to understand how to maximize the benefits and minimize any unintended consequences of these platforms to address poverty alleviation and support inclusive economic growth.

[30] Mendel, 2017. *How E-Commerce Creates Jobs and Reduces Inequality*, Progressive Policy Institute
[31] The extent to which warehouse fulfilment jobs are wage-positive is context-specific. See Fleming, D and Burns, P. (November 2019) *Too Big to Govern* Underwritten by LA County Federation of Labor. www.economicrt.org.