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THE POWER OF MICRO MONEY TRANSFERS

A Practical Guide To Becoming A Highly Profitable Money Transfer Operator

ARUNJAY KATAKAM

Praise for
The Power Of Micro Money Transfers

"Arunjay tells it like it is, and money transfer businesses would do well to listen. In a time of increasing uncertainty and regulatory headwinds, operators need a quick, pointed kick in the right direction. This book is that kick."

Ben Lyon, CEO Hover, former co-founder of Kopo Kopo and a payments geek.

"Arunjay is a masterful storyteller, weaving together deep industry expertise, data-driven insights and fascinating anecdotes to not just bring readers up to speed, but to plot a course forward that is well-informed, compelling and certain to bridge a flagging industry to the forefront of mobile financial services. A must-read for money transfer operators - rookies and pros alike.

Hayden Simmons, Market Strategy, Novi – Facebook

"Arunjay has a remarkable ability to break down complex concepts into actionable insights. All the pieces are in place and this book is your blueprint to bringing these pieces together and usher humanity into the next wave of global digital payments."

Maijid Moujaled, Co-Founder & President at Chipper Cash

"I trust that this book will inform and inspire many fintechs and traditional remittance providers around the world and help them to put the building blocks in place for a much-needed digital revolution in remittances space."

Nika Naghavi, Director of Data & Insights, GSMA Mobile Money

“Arunjay’s book on the Power of Micro Money Transfers is a must read. It’s a fantastic resource for anyone seeking to understand the remittances space. It also is written in a way that is so easy to understand, conveying complex matters with such simplicity. I recommend this book highly.”

Anulika Ajufo, Impact Investor and Advocate – Financial Inclusion

“A timely and important guide to how digital transactions will rapidly change the world - written clearly and informatively by someone who’s been at the forefront of scaling digital financial services around the world.”

Chris Locke, Founder, Caribou Digital

“Arunjay has excellent insights into the money transfer industry. This book provides readers a comprehensive understanding of the current money transfer landscape. It’s a helpful roadmap in thinking through new opportunities and challenges in an ever changing space.”

Daniel Shi, Director, Strategic Partnerships – Remitly

“People working away from home face huge risks and buying insurance when sending money home makes so much sense; yet people do not. This book starts to unpack why that may be and looks at models that may finally work in this final frontier for insurers.”

Richard Leftley, Founder & CEO - MicroEnsure

“Micro money transfers are critical to financial inclusion. This book does a great job of unlocking the business case for them and identifying how money transfer operators can better serve the billions of people who rely on them. As remittance flows continue to increase alongside technological advances and competition, Arunjay offers the industry a practical way to deepen financial inclusion and increase profitability."

Ram Sundaram, Chief Operating Officer – TerraPay

"Arunjay excellently articulates the importance - both socially and economically - of the global remittance market, while providing an insightful and educational guide into making the most of a successful business model."

Gabrielle Clare O'Gara

THE POWER OF MICRO MONEY TRANSFERS

A practical guide to becoming a highly profitable money transfer operator

By pivoting your business model Unlocking micro transfers, and Future proofing your business

ARUNJAY KATAKAM

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The Power Of Micro Money Transfers

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Contents

At a glance

Remittances, like most dominant financial services, penalise the poor—while sending large amounts of money cross-border is relatively cheap, small transactions incur huge fees. As a result, many people don't send small sums of money, instead save up to make monthly transactions. On average, a Mexican migrant remits $300 13 times a year; but back home, imagine the cash crunch in between 'paydays'. $20 goes a long way towards staples like airtime, food and utilities. More frequent transactions can have a profound impact on smoothing out income and allowing impoverished households to better save, plan, invest and grow.

Annually, just under $700 billion is sent home formally. This is four times the amount of international aid, so it significantly impacts the GDP of several countries, like Tonga, Kyrgyz Republic and Haiti, where over 30% of GDP is from international remittances. Additionally, another $300 billion is sent home informally, through friends, family and other informal means. Making up this vast sum are regular individual remittances of, on average, $200 or $300 that migrants send to their loved ones.

Whilst international remittances drive an increasingly competitive industry with new entrants operating across the globe, a significant portion of international remittances (as much as 40%) remain informal. While new and existing players have focused on developing the middle and upper-income retail market, the long-tail of transactions remains largely ignored. Most providers consider high-volume, low-value remittance as too difficult to serve because the traditional transaction-based business model is unable to support it.

Even amongst the most competitive remittance companies, sending less than $100 costs upwards of 10% in transaction fees – something most senders or beneficiaries cannot afford to pay.

This book explains why micro money transfers matter, the impact they have on peoples' wellbeing, and the importance of transparency in an industry riddled with "confusion" pricing. It also outlines how the future of micro money transfers will develop, and how additional financial services can be layered on top to welcome the under-served into the formal financial system.

Finally, this book provides money transfer operators with a blueprint on how to pivot their business model and future proof their business.

Who should read this book

Whilst this book contains several technological advances and mega-trends in payments, it is specifically focused on international remittances also referred to as money transfers.

As such it is targeted to money transfer operators.

Introduction

Remember BlackBerry?

Well, back in August 2005, BlackBerry Messenger was the first to break the traditional per-message charging model on mobile by offering their services via subscriptions. Providers such as WhatsApp[1] have since made their service completely free, and this shift has resulted in an explosion of usage as well as a change in consumer behaviour. WhatsApp was able to change the game by shifting their view from a short-term quarterly business case to long-term success by focusing on the lifetime value of a billion customers—make that two billion.

There were two major factors that changed the game for mobile messaging:

1. Business model: it's clear that even if BlackBerry had charged a tiny fee for every message instead of a subscription, consumer behavior wouldn't have changed as it did. That occurred purely because instant messaging initially became free on a per-message basis and later completely free[2] after Facebook bought WhatsApp and stopped charging the nominal $1 per annum subscription fee.

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[1] Distribution via partnerships with handset manufacturers, messaging reliability and customer trust were also key attributes to achieve mass-scale.

[2] The perceived cost of using an instant messaging service is free, however consumers need to buy a smartphone, pay for electricity to charge it and pay for data to use the service. However due to the versatility of a smartphone, this is pretty much a sunk cost.

2. Sender notifications: sticking with BlackBerry, this was denoted by the characters D (delivered) and R (read), and for WhatsApp, it's denoted by one grey tick for message sent, two grey ticks for message delivered, and two blue ticks for message read, providing assurance of message delivery and transparency for those who opt to share read receipts.

So, what's this got to do with money and micro payments?

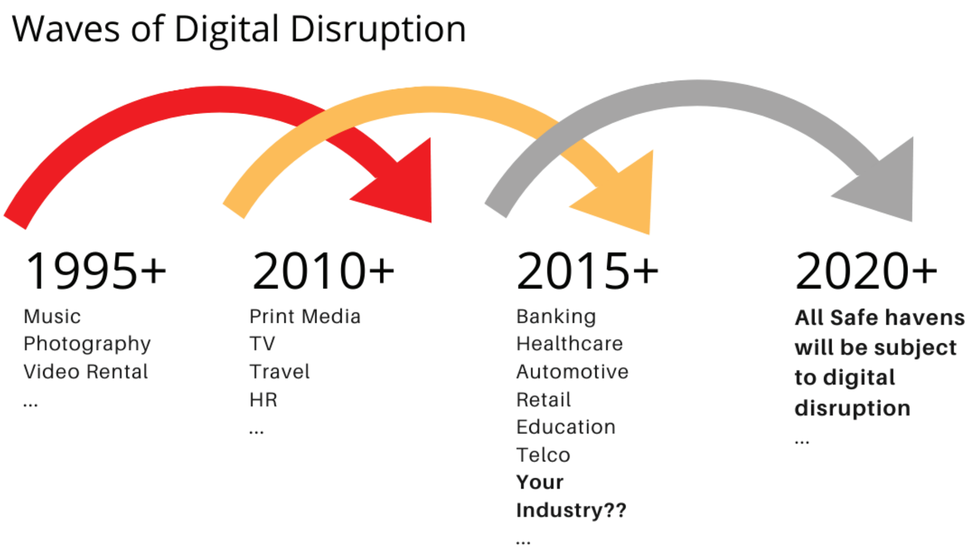
In the developed world, there has been a steady movement towards electronic payments and away from cash. In 2017, for the first time, debit cards overtook cash in the UK as the most frequently used payment method and cash only accounted for 33.8% of payments (by volume).[3] In Sweden, which is widely regarded as the most cashless society on the planet, cash transactions are down to 2% (by value). Most of the country's bank branches have stopped handling cash; many shops, museums and restaurants now only accept plastic or mobile payments. In both of these countries, micro payments (under $10) are what's driving the digitisation. From mom-and-pop stores to public transport and big retailers, almost everyone accepts micro payments.

Only a few years ago, it was common to see a £5 minimum spend when using a card. Similarly, in emerging markets, there has been a big push towards digital transactions, and this trend will only continue.

Even though it's not a perfect analogy, let's think of a current international money transfer as the same as sending an international SMS. It's expensive, you're often left wondering when it will arrive, if at all. It's fair to say that the *WhatsApp moment* for

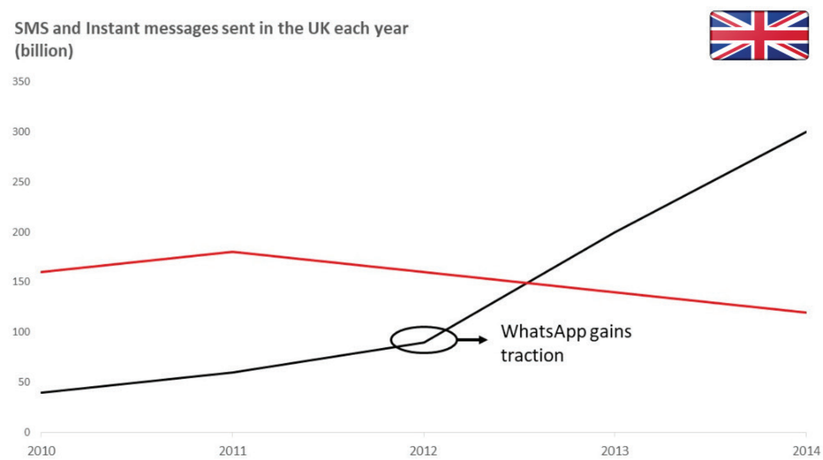
[3] UK Payment Markets Summary, 2018. Available at https://perma.cc/6MX7-TAFG

international money transfers hasn't arrived. But it is imminent, and the question you need to ask yourself is: do you want to lead the disruption or react to it?



Disruption by sector

Today, in a handful of countries, domestic transfers are free, delivered instantly and come with real-time notifications (similar to BlackBerry Messenger). These countries have seen a seismic shift, an order of magnitude greater than before, similar to the explosion in instant messaging vs. SMS.



Graph showing SMS vs Instant Messaging

In 2014, the amount of instant messages sent was double the amount of SMS messages.[4] But the rules are changing fast and two mega-trends are disrupting all industries:

- **The first is that everything is instant and digital.**
  The smartphone has become an all-in-one ordering tool, payment system, and fulfilment service. It connects customers with suppliers and inventory while tracking the precise location of everyone and everything involved in a transaction, driving a mobile-first and mobile-only approach. Every industry, even relatively new and fairly digital ones, will change significantly as we continue to evolve from the analogue world to a world where everything is digital.
- **The second is that physical infrastructure and distribution continues to lose value** – consumers find researching and shopping on the web far more convenient than brick-and-mortar visits. Shopping online or via a mobile device offers a better overall experience, whether from the couch after the kids are in bed, on a mobile phone during a quiet moment at lunch, or on the go. The same is true for money transfers and there is a clear shift from visiting agents and branches to transacting online.

And so here's the secret, when transaction fees disappear (zero or near-zero FX margin) the best way to earn revenue is **net interest from holding customers' funds**, by offering a wallet, account, savings and asset management products — the beauty is that these funds then earn you revenue while you sleep. TransferWise, Revolut, Remitly and Chipper Cash have started moving in this direction. Today, all money transfer operators use their own resources to pre-fund accounts. A day will come when this is reversed, and net funds held will belong to customers.

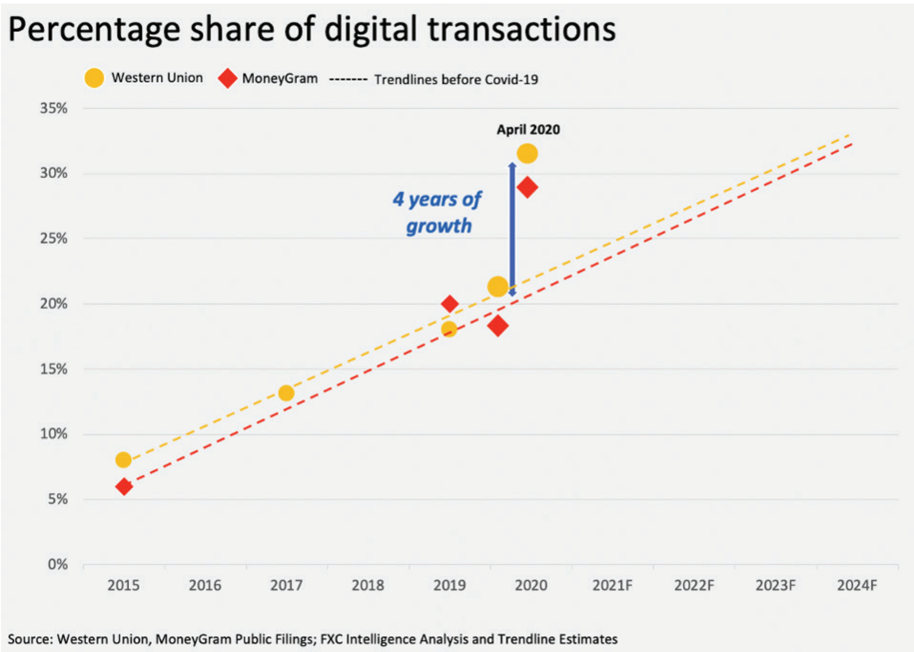
4. Source: Deloitte and OFCOM

Impact of COVID-19 pandemic on money transfer

This book was largely written before COVID-19 was even heard of. It provides insights into the approach that needs to be taken in the new world of remittances and money transfers, which COVID-19 has only accelerated.

In April 2020, the World Bank released a forecast that they expect global remittances to fall by 20% this year.

Notwithstanding the fact that the COVID-19 pandemic is proving particularly severe on migrants and their families who have lost their jobs and income, the COVID-19 crisis helped money transfer operators squeeze four years of digital growth into just two months.



Percentage share of digital transactions

This presents a great opportunity for money transfer operators to drive financial inclusion, with the potential to create financial services for recipients — something no one has previously focused on.

“What an amazing thing
the modern
payment system is?

It is one of a few miracle
technologies that really create
the feeling of magic — along with
global communication networks,
jet travel, etc.

The magic being:
I can work in Paris,
get paid by someone
in Seattle,
and buy something
with a piece of plastic
in Nairobi ... seamlessly.”

Jake Kendall,

Founder and Director at DFS Lab

Part 1

State of play, predicted pitfalls and opportunities in international remittances

Over the past ten years, the money transfer industry has undergone significant changes. Money transfer has grown from mainly a business-as-usual duopoly to one of the hottest areas for fintechs to innovate (especially between 2010 and 2014, and before the arrival of neobanks).

Advances in regulation (especially in the EU), widespread mobile adoption and the subsequent fintech explosion have all contributed to the expansion of international money transfer operators.

As those of you involved in the money transfer industry will acknowledge, the real transformation is yet to happen. I use the first part of the book to set the scene and highlight the various elements that could help create the perfect storm.

Chapter 1 covers the history of international remittances, along with the current landscape and future potential. Chapter 2 focuses on predicted pitfalls and the need for greater industry transparency. And Chapter 3 introduces the new payment infrastructure that's laying the foundation for disruption.

Chapter 1
A brief history, the current landscape and future potential of international remittances

What is International remittance?

This book focuses on person-to-person (P2P) cross-border transfers. Also known as international money transfer (IMT) and international remittance.

Micro money transfers are small sums e.g. $10 or $20, which are often very expensive to send mainly due to minimum fees.

A brief history

Throughout history, humans have moved from one place to another, enriching societies and cultures far and wide. The ability to remit money back home on a regular basis is relatively new.

The oldest company, Western Union (WU), was founded in 1851 and started out as a telegraph service (which was discontinued in 2006). Because of deregulation in the early 1980s, WU began sending money, re-inventing itself as *The fastest way to send money worldwide* and expanding its agent locations internationally.

In the 1960s, the banking association created the Society for Worldwide Interbank Financial Telecommunication (SWIFT), which provided the ability to transfer money. Access was limited and the cost was exorbitant. The most prevalent way to send money in the 1960s and 1970s was using an international bank draft (a paper cheque) that was sent via post.

The whole process took around two months.

In comparison, informal remittance—particularly the *hawala* system[1] — has been around for hundreds of years.

Traditionally, remittances have been an area rife with fraud, leading to consumer confusion about which services to trust. Legitimate money transfer operators have had to compete to distinguish themselves from unregulated channels, which are subject to abuse, and sometimes linked to money laundering and terrorist financing.

Commercial monopolies, outrageous fees and opaque transfer records have plagued the remittance market. Additionally, informal transfer systems present significant regulatory challenges due to the lack of transparency in the transactions.

Until ten years ago, there were only two ways to formally transfer money: (1) bank transfers and (2) depositing cash with an agent and withdrawing at a corresponding agent (e.g. Western Union and MoneyGram).

Digital money transfer operators such as TransferWise and others have all been born in the last decade.

[1] A popular and informal money transfer system without movement of cash, or wire transfers between banks, but instead on the performance, trust and honour of a huge network of money brokers known as *hawaladars*.

The current landscape

It's never been easier to send international money transfers. The days of having to send paper cheques, which took ages to reach their destination and then several weeks to be processed by local banks, are gone. For many countries, the chains of correspondent banks that added time and complexity to international money transfers have all but disappeared. Today, money can be sent online to another country in minutes. People can transfer money directly from their bank accounts, credit or debit card. There is no need to visit a bank branch—money can be sent directly from a mobile device or a computer.

Annually, just under $700 billion is sent home formally, and is set to overtake foreign direct investments for the first time for low- and middle-income countries (LMICs).[2] This is four times the amount of global international aid, so it significantly impacts the GDP of several countries, like Tonga, Kyrgyz Republic and Haiti, where over 30% of GDP is from international remittances. Additionally, another $300 billion is sent home informally, through friends and family as well as through the *hawala* system. Making up this vast sum are regular individual remittances of, on average, $200 or $300 that migrants send to their loved ones.

And these remittances—both formal and informal—are only going to increase. Over the last 20 years, the global migrant workforce has grown from 173 million to 272 million,[3] an addition of 100 million people and is expected to grow to 350 million in the next 10 years[4] as people continue to migrate.

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[2] KNOMAD remittances data. Available at https://perma.cc/4LHG-YT9P

[3] United Nations Department of Economic and Social Affairs. Available at https://perma.cc/MGA3-L5RM

[4] Based on an extrapolated growth rate of current migration

The size of the global international remittances

In 2018, $689 billion was transferred back home by individuals. This figure was $458 billion in 2008 and $114 billion in 1998. India is the largest recipient country, receiving $79 billion annually, followed by China ($67 billion), Mexico ($36 billion), the Philippines ($34 billion) France ($27 billion) and Egypt ($26 billion). Remittances to Sub-Saharan Africa grew almost 10% to $46 billion in 2018.[5]

The size of informal remittances

There is no official data on the overall size of informal international remittances. It is estimated around $300 billion.

Key recipient countries (% of GDP)

On a country level, inward foreign exchange through remittance can be a significant contributor to the country's gross domestic product and foreign exchange reserves.

List top 10 countries by percentage of GDP[6]

1. Tonga (40.70%)	6. El Salvador (20.68%)
2. Kyrgyz Republic (33.22%)	7. Honduras (19.93%)
3. Haiti (32.53%)	8. Samoa (17.25%)
4. Tajikistan (29.02%)	9. West Bank and Gaza (16.98%)
5. Nepal (27.77%)	10. Moldova (16.06%)

[5] KNOMAD remittances data. Available at https://perma.cc/E4YG-GK74

[6] World Bank data. Available at https://perma.cc/6VDT-68R2

Comparison with global international aid

According to the World Bank, global international aid totalled $162.8 billion in 2017.[7] This figure is dwarfed by international remittance, which in 2017 totalled $633 billion [8]—nearly four times the amount. This highlights the significant contribution migrant populations are making to their home countries.

How did this come about? Driven by a global workforce

The global number of international migrants reached an estimated 272 million in 2019, an increase of 51 million or 23.1% since 2010, continuing an upward trend in all world regions, according to the UN.[9]

According to the International Fund for Agricultural Development (IFAD), more than 200 million migrants currently send money home to support around 800 million family members.

This means one billion people are directly affected by remittances every year, either as senders or receivers, which clearly has a profound macroeconomic impact.

Over the next ten years, the number of migrants is expected to increase to 350 million, who will remit anywhere between two to three trillion US dollars annually. The money transfer industry is huge and is expected to grow rapidly.

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[7] Net official development assistance and official aid received (current USD$).
Available at https://perma.cc/4G55-5DLF

[8] Record High Remittances Sent Globally in 2018.
Available at https://perma.cc/GK93-75ZB

[9] United Nations Department of Economic and Social Affairs.
Available at https://perma.cc/MGA3-L5RM

What drives informal remittances?

For those without access to the formal financial system, it's the only way to send money home. There are those who choose to avoid the formal financial system, but for the vast majority, it's convenience that drives their choice.

Informal remittances include two main categories:

1. Transporting cash or equivalencies (gold, gifts, etc.) in person – either by the person themselves or with a friend or family member.
2. The *hawala* system, which in itself is not illegal as long as the *hawaladar* (agent) complies with local regulations related to money laundering and the need to evidence levels of taxable income. However, in practice transactions are made outside all the regulations and *hawala* has become infamous as an easy way to fund dangerous and suspicious activities.

Transporting cash or equivalencies in person is often done for cultural reasons — the act of giving a physical gift or cash feels different to when funds are transferred. Another reason is the perceived cost savings, as some people believe carrying cash is free — in reality, they probably get a worse exchange rate converting to local currency in-person when compared to many of the fintech money transfer operators.

The *hawala* system is used on a much more frequent basis. It's more expensive than most formal remittance services and is based completely on trust. So why would you be willing to pay more? For those without access to the formal financial system, they have no choice and simply have to pay up. Some choose to avoid the formal system, so they can gain more. However, for the vast majority, the convenience trumps the cost.

Informal credit and home delivery of cash

Trust also works on a level that's opposite to how the formal financial system works, where the system needs to trust an individual, vs. in the case of a *hawaladar*, a person trusts an individual.

Meet Surya, a Nepali labourer in Dubai. He receives a request to send money home for an urgent need. He can't leave his job and go line up at a money transfer kiosk. Instead, he makes one phone call to his *hawaladar* and the money is delivered to his family at home. Surya then pays the *hawaladar* over the weekend when he has time off. Here, the *hawaladar* provides informal credit and home delivery of cash, which even beats Western Union's vast agent footprint. Note, some money transfer operators also provide home delivery.

Even if the sender has the time to go to a money transfer kiosk, deposits the cash and executes the transfer, the recipient has to go to a corresponding kiosk, which can often be quite far away. Additionally, an elderly recipient might find it challenging or intimidating to receive the money from a kiosk. The convenience of having the cash delivered to the recipient's house solves all these problems. As a result, informal credit and home delivery of cash are two major conveniences that drive informal remittances.

Driving down the cost of remittances

In the first quarter of 2019, the global average cost of sending $200 remained high, at around $14 (7%) according to the World Bank's Remittance Prices Worldwide database. Reducing remittance costs to 3% by 2030 is a global target under the Sustainable Development Goals. There's a lot of work to be done, however, as remittance costs across many African corridors and small islands in the Pacific remain above 10%.

European Union's Cross-Border Payments Regulations (CBPR2)

A transaction in Euros across the Eurozone (i.e. from France to Portugal) costs exactly the same as an equivalent transaction within one Member State. Depending on the bank, it may be free of charge or cost only a few cents. This allows customers in the Eurozone to make transactions across borders at the same cost as within the same country.

In contrast, a transaction in euros from a non-Euro member state to a Euro-area member state (for example, from Bulgaria to Finland) was priced between €15 and €24, even if the amount transferred from Bulgaria is only €10. Consumers and businesses in non-Euro area member states faced higher fees for Euro payments as soon as they operated across borders. This was a major barrier to intra-EU exchanges and was detrimental to the single market.

However, with the new Cross-border Payments Regulation coming into effect in December 2019, the price of an intra-EU transaction in Euro from Bulgaria to Finland is expected to decrease, from between €15 and €24 to about €1.

Whilst providers had more than a year's notice before the changes took effect, overnight on 15 December 2019, considerable margin was wiped out.

Beyond the EU, when it comes to international remittances, the problem for financial regulators is that by nature it is not controlled by one regulating body.

In 2004, the G8 created a task force to develop general principles for countries to improve their international remittance services. The resulting five principals, published in 2007, focused on improving payment aspects by making services (1) safe for the consumer, (2) efficient through improved infrastructure, (3) fair with appropriate regulation, (4) competitive with more services and lower prices, and (5) robust through relevant governance and risk management.[10]

The world Bank, in partnership with BIS, IOSCO and ITU, has since been coordinating efforts with financial sector entities including central banks, capital markets authorities, regulators, regional development banks and donors.[11] These efforts focused country-level support and generates international standard, however, whilst the EU has jurisdiction of their member states and can impose regulations and cost caps, the World Bank and its partners don't have similar muscles to flex and can only resort to advocacy efforts. It's difficult for any other body to set the fee for transfers between two sovereign countries.

The shift from cash points (WU outlets) to digital (bank accounts)

Given that 70% of formal remittances are sent via cash (and the entire informal remittance industry works on cash), there is a huge opportunity for fintechs to digitise international remittances.[12]

Western Union, the largest international remittance provider, has over 550,000 cash points globally. In comparison, MoneyGram, the next biggest provider, has 350,000 cash points.[13] It drops sharply after that, as these two providers have a huge lead over the rest of the market.

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[10] FinDev Gateway. Available at https://perma.cc/JR3K-WGZD

[11] World Bank. Available at https://perma.cc/8U69-78C5

[12] World Bank data. Available at https://perma.cc/3CH8-KH32

[13] MoneyGram data. Available at https://perma.cc/P4M3-ZR54

Western Union, with operations in 200 countries and territories, processed an average of 34 transactions every second and moved $300 billion in principal across 130 currencies in 2018.[14] However, only 30% of their transactions were paid into bank accounts (funds terminating digitally).[15]

Changing consumer behaviour has not been easy. High stickiness of cash, old habits and the need to build trust have all contributed to slow growth.

That said, looking at Rogers' bell curve–innovation adoption lifecycle, we have passed the early-adopters and moving towards early majority.[16]

Of the new crop of fintechs providing international remittances, some are purely digital. They accept funds digitally and disburse them digitally too. Others accept funds digitally and provide the sender the option to terminate the funds either digitally or at a cash point. These fintechs haven't built their own network of cash points but instead have partnered with local businesses and aggregators, like Ria, Xpress Money (Uniteller) etc, who have built domestic agent networks. In a way, these partners have opened their platform to allow fintechs to access their distribution network.

No doubt for a recipient, collecting cash from a cash point has its advantages. In most cases, it's conveniently located in local communities and the recipients have built relationships with the agents who run them. That said, using cash is inefficient and expensive.

It's no surprise that both Western Union and MoneyGram recently reported losses. They may have great capabilities and

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[14] Western Union data. Available at https://perma.cc/SAY7-PJKY

[15] Western Union data. Available at https://perma.cc/9QYZ-ZMHJ

[16] Based on Everett Rogers' Diffusion of Innovation

assets, but they're relying on the wrong business model for today's consumers in a digitally-enabled world[17]. So far, they have failed to leverage their infrastructure and capabilities to their maximum potential.There's lots of room for them to turn costs into revenues through real innovation and by maximising their networks, systems, and global footprint. Sadly, there's also too many lost opportunities and it remains to be seen if they can reinvent themselves or go the way of Kodak, who invented the digital camera, but couldn't stop themselves from selling film.

Digitisation of international remittances is happening a lot faster on the send side than it is on the receive side.This is primarily due to better pervasiveness of electronic payment instruments (credit/ debit cards and real-time banking payments) in the developed world, though this is slowly improving in the developing world, with a greater focus on banking the unbanked—nowhere more so than in India (see page 134).

Barriers to digital remittances adoption

Despite these rapidly rising digitisation trends, three fundamental factors still create hurdles for widespread digitization and adoption:

1. **Income origination is not digital — wages are paid in cash**
   No doubt when your wages are paid into a bank account, it is much easier to use a digital money transfer provider. For those who are being paid in cash, waiting for their employers to shift from cash-based to digital wage payments is a luxury they simply can't afford. If they are lucky enough to have a bank account, making cash deposits is the only way forward in many countries currently in lockdown.

[17] August 2019 - Western Union reported a 5% decrease year-over-year in revenue to $1.3 billion, MoneyGram reported an even bigger revenue loss of 14% year-over-year, falling to $323.8 million and a net loss of $27.2 million, compared to its net income a year ago of $2.3 million

2. **Behaviour change is hard — technology has been around for sometime** For example, all the technology we are currently using to work-from-home has been around for at least the last 5 years. Yet, only a small percentage of the work-force who could work from home, did so. Now that we have no choice, millions of workers have taken to working remotely from their homes. Similarly, it's no surprise that despite digital offerings with much cheaper prices, migrant workers continue to use cash based agents, with whom they have built relationships with. Changing behaviour has always been a challenge across all industries, remittances probably even more.

3. **Majority of digital offerings are poorly designed — especially from incumbents** It's shocking how bad some user journeys are. Cost of customer acquisition is expensive and after getting potential customers to the point where they downloaded an app, losing them right after that point, before they can initiate a transaction, ends up wasting the upfront investment. Improving on-boarding experiences will be important to remain competitive (see chapter 7).

Future potential

With the migrant population set to increase to 350 million in the next 10 years, and with migrants' average wages steadily rising, it's only natural that the money transfer industry will also continue to grow. The UN predicts that remittances will surpass $8.5 trillion during the 2015-2030 timeframe set for the Sustainable Development Goals.[18]

If we had waited for telecommunication companies to reduce the price of international phone calls and SMS messages, we'd probably be waiting forever. Instead, there was a revolution which

[18] UN News. Available at https://perma.cc/6MFG-4LF8

started with Skype and became ubiquitous once WhatsApp introduced audio and video calling.

No doubt, the high costs of money transfers reduce the benefits of migration. Renegotiating exclusive partnerships and letting new players operate (through national post offices, banks, and telecommunications companies) will increase competition and lower remittance prices, but a revolution in how money is sent will completely change the landscape.

In addition, today's technology allows for so much more innovation to enrich customers' lives (detailed in chapters 9 and 10)—those companies who evolve and address the adoption barriers will thrive while the rest will be left behind.

In a world where we are increasingly connected, people expect instant services. Whether that's streaming music on Spotify, watching a show on Netflix or even buying from Prime Now (Amazon's two-hour delivery service). In payments, customers want to pay right now and the recipient wants to receive payments instantly too, including across borders.

The rise of mobile and digitisation of money are the two biggest drivers that are changing the way we manage and move money. Mobile technology is helping break down barriers—making remittances more convenient, secure and affordable.

However, today, money transfer operators offer services only to senders, and even those services are generally limited to just remittances. Imagine a world where money transfer operators offer a suite of services to both senders and recipients alike.

It's from this suite of additional services (also known as *adjacencies*) that money transfer operators will generate nearly all their revenues in the future, allowing for basic money transfers to be free, and resulting in an asymmetric business model that will unlock micro money transfers.

Adjacencies

Adjacencies are activities that support revenue-earning products that link to the basic payment system. There are three types of adjacencies.

First, some adjacencies tie to direct use of the payment system. For example, banks earn interest on money that users deposit in current accounts.

Second, adjacencies stem from use of financial services linked to payments. These can come from additional financial products (e.g., savings, insurance, lending).

Third, non-financial adjacencies accrue from services unrelated to payments or financial services (e.g., the sale of transaction data to advertisers or rating agencies).

Summary

Over the last hundred years, global migration has given rise to international remittances, with people sending money home through formal (such as Western Union), or informal channels, such as the *Hawala* system. However, the way we manage and move money is set to change.

- Over the next decade, the number of migrants is expected to increase to 350 million, who will remit anywhere between 2-3 trillion dollars annually.
- In an increasingly-connected world, people expect instant services. With payments, customers want to pay right now and recipients want to receive payments instantly too, even across borders.
- The rise of mobile and digitisation of money are the two biggest drivers that are changing the way we manage and move money.

Today, almost no one has bothered to build relationships with recipients

Building relationships with recipients will be the holy grail for money transfer operators

Chapter 2

Predicted pitfalls and the need for transparency

Money transfers and transparency have never really been aligned. For the vast majority of transfers, the true cost to the customer is not explained.

Previously, customer trust was about providing the sender assurance that their funds would reach the recipient. With instant transfer, this is now more or less a given, and the nature of trust is shifting—customers are asking the question, "Have you got my back?"

An industry-wide problem

Current money transfer operators take two bites at the cherry. First, they charge a flat-fee (or a percentage/commission) for the transfer, and then they make a margin on the foreign exchange (FX) rate. There are also those who offer free transfers or 0% commission, meaning they aren't charging the fee, yet they are making a fat margin on the FX rate. The banks are the biggest culprits when it comes to hidden fees. They have been exposed over the years but seem to be too thick-skinned to change their profit-seeking ways. I'm not against banks—they play a vital role in our society—but they are simply not setup for retail international remittances. A new wave of fintech start-ups will automatically solve the problem, much the same way as the various instant messaging services provided a reliable and transparent solution for international SMS.

In addition to the lack of transparency over cost, there is often opacity over where the funds are, and how long they will take to be delivered. More progress is being made here with instant transfer, as more countries improve their national payment systems.

Using confusion pricing as a strategy to attract customers

As the foreign exchange rate is constantly changing, it's very difficult for a customer to gauge the market on an ongoing basis. Some undertake detailed price comparisons focusing on how much money is reaching the recipient and most rely on the word of mouth recommendation from those who have undertaken a price comparison for themselves. Whilst price comparison websites such as *saveonsend.com* do a great job of comparing providers, they can only go by what the provider is currently offering.

However, price comparisons can be problematic, particularly when providers use introductory rates to lure customers to their service. At the time of the price comparison, these introductory rates were the best, often by providers subsidising the transfer (i.e. losing money). Once a sender has jumped through the hoops of proving their identity with a provider, they're no longer shopping around for the best rate. This is when that introductory rate disappears, and then slowly the rate increases further as the customer becomes more entrenched in the service. It's a trick played across many industries where the switching cost is high.

Imagine the embarrassment for the person who recommended a provider and is later told that the exchange rate is much worse than another competitor. Providers are missing out here, because instead of creating brand ambassadors, they're doing the opposite: creating irate customers.

Some senders have wisened up to these promotions but are fed up with having to constantly shop around and keep switching. This 'promotion fatigue' is driving senders in search of a reliable money transfer operator—so far, with little success.

Providers are not aligned with their customers

There is a clear conflict of interest and you can change this. Simply put, offering introductory exchange rates to attract customers and then increasing exchange rates results in increased profits.

Once a customer base is built, increasing a provider's margin by 5 basis points (0.05%) is virtually negligible to an individual customer but can equate to millions of dollars in profits (depending on the volume of the business). Even if customers are aware they could get a better deal elsewhere, they're unlikely to bother with the trouble of switching.

Of course, the problem begins when greed kicks in and the margin is further increased. Some providers play more tricks by either spiking or reducing margins at certain times, such as a festive period when more people are price checking.

As the FX rate constantly changes, providers can adjust their rates in such a way that they come across as competitive.

Here are a few examples:

- Unfriendly consumer pricing strategy of companies like Xoom where a fee could go up or down 2-3x day-to-day.

- Money transfer operators temporarily drop prices in order to grow their share in a particular corridor with a hope that investors and customers don't get the big picture.
- Some fintech startups love to talk about their profound empathy for the poor. So, naturally, when Mexican migrants panicked after Trump's election, the same providers raised their prices.
- Western Union's CEO, Hikmet Ersek in May 2018 "We adjust prices constantly. We do constantly change our prices corridor by corridor. We even have weekend prices."

One provider was recently caught out

Customers across the US are now turning the heat on their popular money transfer sending app (name redacted) over their dollar to foreign currency exchange rates compared to their rivals or competitors like MoneyGram and Western Union.

In the recent past this app used to be the most preferred channel to send money to Africa and specifically to East Africa but is now losing ground because customers are concerned about their exchange rates to the dollar.

On 24 January 2020, many customers were left wondering why the app was giving them a raw deal while the exchange rate was $1 dollar to 101 Kenya shillings the app was giving them a paltry 97 Kenya shillings to a dollar.

A customer who was irate with the rates accused the provider for not showing their competitors rates claiming that "they've always been revealing this comparison since they launched their app a few years ago but now are not giving customers an overview before they send money."

No doubt, more competition in the industry and a continued increase in volumes are both responsible for driving the overall cost down. However, the fact remains that providers are not aligned with their customers and a clear conflict of interest exists.

FX scandals

Over the years, there have been a fair share of high-profile FX scandals.

A few years ago, Bank of New York Mellon Corp paid hundreds of millions of dollars to settle charges over a foreign-exchange scandal. The scandal was pretty simple. Some of BNY Mellon's customers—companies and investors who used BNY Mellon as a custody bank and who used its "standing instruction" foreign-exchange product—would come to it during the day to convert currencies, say, to sell euros and buy dollars, or vice versa. At the end of the day, BNY Mellon would do the conversion; it would give the customers their dollars, or their euros. BNY Mellon would do this for free: The customer would get the interbank rate for converting dollars to euros, and BNY Mellon would not add any extra spread or commission.

Except there was a catch. The customer would not get the interbank rate at the time it put in its order, or the interbank rate at the end of the day. It would get the worst interbank rate of the day. If on a particular day the euro traded as high as $1.135 and as low as $1.125, everyone converting euros to dollars would get filled at $1.125, and everyone converting dollars to euros would get filled at $1.135. BNY Mellon would pocket not the tiny customary bid/ask spread in the interbank market, but the much larger spread between the highest and lowest prices of the day.

People at BNY Mellon thought about what they cared about, and they thought about what their customers cared about.

They concluded that they cared about maximizing their profits on these transactions, but that their customers cared about minimizing explicit fees. The relatively low-level employees at the customer investment firms who did these ministerial foreign-exchange conversions wanted to tell their bosses "we got the interbank FX rate with zero commission," because that seems like good performance. Every day they really did get the interbank rate—well, an interbank rate—with zero commission. Their preferences were satisfied. Meanwhile BNY Mellon got the highest possible profit consistent with giving customers an interbank rate with zero commission.

This was fraud, you should not do this, do not take this as a lesson in financial-product design. The Justice Department and the Securities and Exchange Commission thought it was fraud too, which is why they fined BNY Mellon hundreds of millions of dollars.[1]

[1] This write up on BNY Mellon was by Matt Levine of Bloomberg News

**Transparency is
so vital in this
day and age.**

**The one thing you need
to do really well
(in addition to being able
to transfer money)
is be upfront about
exactly how much you are
charging your customers.**

A new wave of transparent companies

Never more so than now has there been a need for greater transparency. Consumers across industries are demanding it, and technology is enabling it.

The insurance industry is notorious for not being aligned with their customers. Their conflict of interest comes from their less-is-more approach: less pay-outs equals more profits. However, this is changing. Lemonade, a new insurance company in the United States which offers cover for a fixed percentage of the premium and donates leftover premiums[2] to a charity of your choice, is a great example. When a customer makes a claim, Lemonade's objective is to ensure it's legitimate and not try to find some fine print to disallow the claim. They are aligned with their customers, and they are not sacrificing profit to provide a fair and equitable service. If there were more claims than premiums collected, then the cost is passed on to the entire customer base in the following year, much in the same way as the rest of the insurance industry.

Another example is Monzo Bank in the UK. From the beginning, they built their company around transparency. From telling their customers of every problem they faced (rather than trying to hide them – like the big banks), to explaining their fees clearly, Monzo has set the standard for being open and transparent.

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[2] In the Lemonade model, policyholders choose a Giveback cause when they sign up for insurance. People choosing the same cause form an invisible 'cohort.' Behind the scenes, each cohort's premiums are used to pay their claims, and Lemonade then gives back any leftover money (up to 40% of premiums) to their common cause. Lemonade's giveback increased more than 10x in two years. In the global insurance company's third annual giveback, where underwriting profits go to nonprofits, the Lemonade community gives back $631,540 which will be donated to 25 nonprofit organizations chosen by policyholders.

Exposing the zero-fee myth

Many banks and money transfer operators claim to charge no fees to their customers for overseas money transfers. Upon closer inspection, I've found that these institutions add margins to their FX rates, in addition to "other charges" that are unknown to their customers (see table below).

Provider	Total cost*	Margin*	Received*	Duration* (hours)	Service quality
REMITLY	$1,000	0.6%	INR 75,310	120	★★★★☆
WESTERN UNION MONEY TRANSFER	$1,000	0.7%	INR 75,234	96	★★★★☆
Ria	$1,000	0.7%	INR 75,234	120	★★★★☆
IndusInd Bank	$1,000	0.8%	INR 75,158	168	★★★★★
MoneyGram money transfer	$1,000	0.9%	INR 75,083	3-24	★★★★☆
TransferWise	$1,009	0.9%	INR 75,765	72	★★★★☆
TRANSFAST	$1,000	1.0%	INR 75,007	120	★★★☆☆
vianex	$1,003	1.1%	INR 75,158	72	★★★★☆
xoom	$1,005	1.6%	INR 74,931	4	★★★★☆

Table 2.1: price comparison of money transfer providers

One group of money transfer operators, most using some form of crypto currency as a mechanism to move money also say their transfers are free. It's important to point out that in many cases whilst the cost to transfer on their platform is free, they are not taking into account the cost of transferring the funds from their platform to the traditional banking world, also known as the off-ramp.

2018 yielded some indications that the industry is moving towards a fairer approach. In the latter half of that year, a landmark ruling came through the EU's Cross-Border Payments Regulations, stating that people must know the full costs and charges of international transactions upfront—meaning that money transfer operators must isolate their FX margin and disclose it to their customers. This is the first time that a regulator has mandated transparency and it's a very positive sign that the industry could be moving towards a transparent model. The new regulation came into effect in December 2019.

Two companies, TransferWise and InstaReM, moved to a more transparent model prior to the EU regulation. However, they still make FX margin that they are not telling you about, in addition to the fees they charge. We are splitting hairs here, so I'm not criticising them. When it comes to FX, there's a difference between using the mid-market rate and the buy rate, which truly doesn't have any margin.

TransferWise uses a lot of transparent language in their marketing, but I don't understand their explanation of the mid-market rate. They claim "The mid-market rate is an exchange rate unlike any other. It's the real one", except the mid-market rate is nothing but the average of the buy and sell rates.

They say with the sell rate, you pay more, but with the buy rate, you receive less? For instance, the buy rate for Indian rupees (INR) using US dollars is USD 1 = INR 70.84. The sell rate is the reverse, how many rupees it takes to buy one dollar, and in this example, it's 70.86. Therefore, the mid-market rate is 70.85 (the average of the buy and sell rates). This doesn't change the fact that TransferWise's buy rate is less than the mid-market rate they're offering you (and sometimes more).

This is called hidden FX margin.

Figure 2.2: Image from TransferWise website explain Mid-market rate

InstaReM also emphasizes no hidden charges and they charge only a nominal fee. Customers get the mid-market rates as published on Reuters and InstaReM don't add any margins to that rate (However, the cost of their funds—the rate they bought at is not the current mid-market rate).

Let's take a closer look at the mid-market rate. As mentioned, it's the average of the buy rate and the sell rate – the price at which someone is willing to buy and someone else is willing to sell. The mid-market rate is used for reference only. In real terms, you can't trade at the mid-market rate, it simply doesn't exist in the market.

For example, consider the two wholesale rates for the most competitive currency pair, GBP/USD (known as 'the cable'). The buy rate was 1.29902, the sell rate was 1.30007, and the difference of 0.00105 is a market marker's margin for taking on risk and for running their operations, which works out to a 0.08% margin. The mid-market rate is 1.2995, but there are a few things to note.

The first is that the buy rate is lower than the mid-market rate and it's the true cost of funds for a money transfer operator.

The second is that the fifth decimal place value is missing. While this doesn't seem significant, 0.04% of $5.2 billion (TransferWise's monthly volume) is $2.08 million – a handy sum, especially when it totals to $25 million of annual revenue.

Like I said, we are splitting hairs here. Especially given that there is a lag between when foreign exchange is bought and sold. Which means at times, when TransferWise or InstaReM use a mid-market rate, they could be losing money as the rate at which they bought the foreign exchange could be higher than the current mid-market rate.

As a final note on mid-market rates, XE.com has this to say on their website "All figures are live mid-market rates, which are not available to consumers and are for informational purposes only."

If you want to provide absolute transparency, you could use the interbank rate, without adding an extra spread or commission.

EU and US regulation to the rescue

New EU regulation[3] will require providers to disclose charges for currency conversion services and apply to both national and cross-border payments in the EU that involve a currency conversion, regardless of whether or not the payment is denominated in euro or in a national currency of a member state that is not euro.

Under the amended regulation, payment service providers ("PSPs") must express their total conversion charges as a percentage mark-up over the latest euro foreign exchange reference rates issued by the European Central Bank ("ECB") and must disclose that mark-up to the payer prior to the initiation of the payment.

[3] Regulation (EC) No 924/2009 on Cross-Border Payments (the "CBP Regulation")

Providers must also disclose, prior to the initiation of the payment, to the payer the amount to be received by the payee in the payee's currency and the amount to be paid by the payer in the currency of the payer's account.

These new disclosure requirements came into effect at the end of March 2020.

The US Consumer Financial Protection Bureau also makes it a legal requirement to be transparent and provides specific conditions.[4]

Similarly, the Financial Conduct Authority (FCA) in the UK are cracking down on what they call "unachievable" exchange rates.

AI/Machine reasoning in FX

In late 2019, a consortium of The Money Cloud,[5] Warwick Business School and Coefficiency Lab have been awarded Innovate UK government grant to build an AI/Machine learning product with features that create a differentiated and unique value proposition for all platform users democratising the FX sector.

This autonomous machine reasoning tool will offer real-time pricing and exchange rates from the entire market.

[4] Federal register. Available at https://perma.cc/3KYW-73XE

[5] The Money Cloud is a price comparison platform, allowing users execute transfers through multiple money transfer operators.

Transparency drives loyalty

To think otherwise is to simply stick your head in the sand.

As a customer, when you know a company has your back and is not looking to rip you off at the first opportunity, you automatically feel a level of comfort and you gravitate towards them.

Of all the challenger banks, Monzo (not yet a remittance provider themselves) has the highest percentage of accounts being used to receive salaries. In my view, this is the most important metric to gauge customer trust and loyalty and is a true testament to Monzo's transparency.

Summary

The money transfer industry is rife with a series of issues that impact customers, including confusing pricing, hidden fees, and too-good-to-be-true introductory rates.

New regulation is changing this, along with more transparent companies.

- Money transfers and transparency have never really been aligned. For the vast majority of international remittances, the true cost to the customer is not explained.
- There's both a lack of transparency with cost and a great deal of opacity around where the funds are and how long they will take to be delivered.
- Consumers are demanding greater transparency, and technology is enabling it. Transparency is, in turn, driving customer loyalty.

Chapter 3

New payment infrastructure is laying the foundation for disruption

Payment infrastructure has always been critical to international remittances. Going back several decades, SWIFT provided the infrastructure to move money from country to country through a network of correspondent banks. Even today, this is still in use for almost every provider, as they use SWIFT at the very least to re-balance their funds. Yet SWIFT transfers remain costly, involve processes that are cumbersome to navigate and slow to execute, are generally available only during limited times of the day and can take days to clear.

In case you are wondering what payment infrastructure, cryptocurrencies and big business solutions have to do with micro money transfers, well a lot — read on to find out.

New payment infrastructure has been added on both sides (send and receive) to create more efficiency. On the send side, it has been the acceptance of cards, primarily Visa and Mastercard, as the ubiquity of cards increased and cost to accept these cards became viable. Additionally, the ability to transfer funds domestically to an international remittance provider from a sender's bank account became accessible through internet and mobile banking.

On the receiving side, beyond the SWIFT network, the recent ability for a provider to partner with one bank and terminate funds in any bank account in a given country was another key to digitising remittance flows at the recipient end.

Despite this, many payment networks today remain siloed and disconnected. Payments are relatively easy within one country or if the sender and recipient have accounts on the same network. Try sending to someone on a different system though, and you may be out of luck. Where connections between networks do exist, they are manual, slow and expensive. This is set to change.

Real-time national payment systems

Technology exists long before it's adopted by the masses. In 2001, Korean Electronic Banking System was the first real-time national payments system. Over the first half of the last decade, progress across the globe was slow, however there has been more momentum in the past three years.

That said, different counties and banks are at different stages of their evolution and readiness, making it difficult, though the direction of travel is towards greater harmonisation.

Real-time national payment systems can also work globally. Two existing payment rails in two different jurisdictions could be configured to connect with each other simply by translating payment instructions to the common payment language. This would make the two payment rails interoperable with each other. Once technological barriers have been overcome, enabling such bilateral cross-border solutions is then a matter of having mutual confidence that each domestic network's KYC and AML/CFT is sufficient. For example, the recent pilot where a payment system (India's UPI) was connected with Singapore's network for electronic transfers (NETS) suggests significant advances could be made to cross-border payments within the existing environment.[1] This arrangement can provide the same level of convenience as any standalone system (eg Alipay, global stablecoins) that might enable payments between two jurisdictions, albeit with the added advantage that it would settle in fiat money[2] within the regulated financial system perimeter.

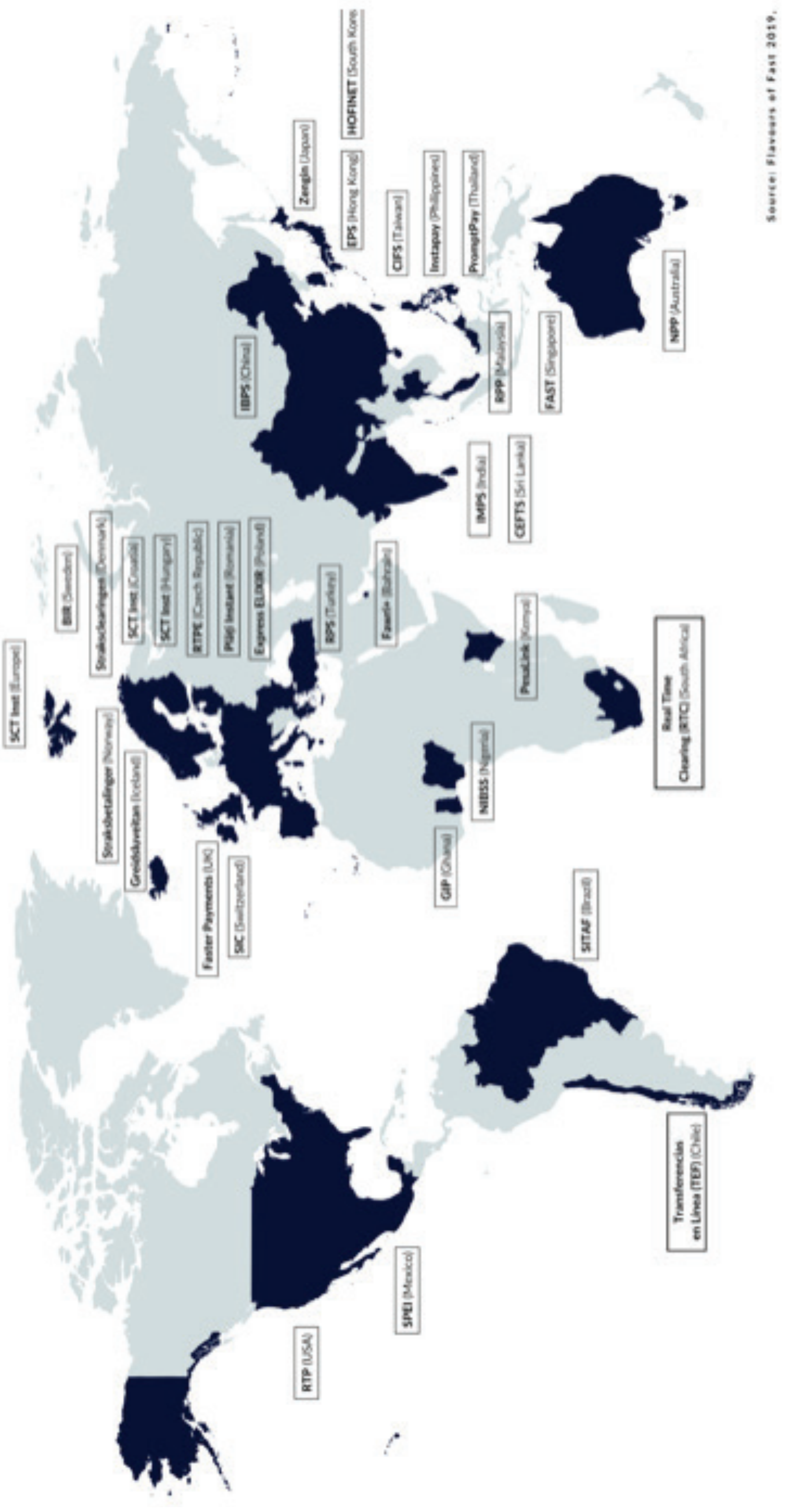
Landscape of progress across the globe

Today, 54 countries have active real-time national payment systems, up from 40 in 2018 and nearly four times as many as five years ago in 2014.[3] Real-time payments are expanding across the globe at an unprecedented pace with many more set to launch in the next two to three years.

While payment systems have become more efficient in many countries, progress has been uneven, with considerable scope to upgrade further. It is not surprising that both Mastercard and Visa are exploring immediate payment solutions as the volume of real-time payments continues to grow globally.

[1] High Commission of India in Singapore, press release on the pilot launch of BHIM QR in Singapore, 13 November 2019. Available at https://perma.cc/9NLN-3CL3

[2] By fiat money, I mean state-issued money, declared by the sovereign government to be legal tender.



[3] Number of Real-time Payment Systems Continues to Grow Globally, FIS Report Shows, September 2019

Initiatives using conventional technology

SWIFT Global Payments Innovation (GPI)

Not to be left behind, SWIFT Corporation has built SWIFT GPI, a quantum leap to improve speed, security and transparency issues in payment processing standards, which is now being used by 165 member banks. SWIFT GPI dramatically improves cross-border payments across the correspondent banking network, and not least for corporates for whom speed, certainty and a smooth international payments experience is an absolute must. Given SWIFT has such a large network of member banks, GPI is becoming a standard for speeding up processes and promoting transparency and efficiency.

RTGS.global

Nick Ogden, who calls himself 'the plumber' and is also the creator of fintech heavyweights Worldpay and ClearBank, is spearheading an initiative to improve the speed and performance of international payments. RTGS.global is a new business designed to remedy the problems involved with the invisibility of liquidity between countries.

The core premise is that while each correspondent bank is aware of its own liquidity position, in order to judge the creditworthiness of another bank, indices must be trusted, and that this process is not reliable or transparent, as payments are routed.

"SWIFT have invented and implemented GPI, which is great but there remains a lot of friction in the way that the entire international payments marketplace operates. Our plan was to look at this problem from a liquidity point of view and create a business that understands the known value of liquidity in relation to the banks that are in the chain of every transaction," Ogden says.

Here is how it works: for a transaction between the UK and US, when the payment request instruction comes through, the RTGS.global system will temporarily lock liquidity within the UK bank for the value of the proposed transaction, then notify the US counterparty bank that these funds are reserved for the payment. The US bank also 'locks' the same value, to ensure that this is a risk-tree transaction.

After the UK bank accepts the trade and the transaction, the technology creates a 'liquidity block', simultaneously releasing both liquidity locks for the credit of the appropriate parties. "The dollars become the property of the UK bank and the sterling becomes the property of the US bank, instantly in real-time. It is that simple. With this process, global payments can be completed in seconds anywhere, without risk."

"You don't need to use technology for technology's sake to solve these problems. Blockchain is often touted as the way to solve these issues, but actually they introduce risk associated with the value of the transaction." says Andrew Smith, Founding CTO, RTGS.global & ClearBank.

When contrasted with Libra's regulatory struggles, Ogden claims to have received encouraging support for the initiative from key central banks and regulators, which see benefits in RTGS.global's approach for strengthening the financial system and utilising bank liquidity more effectively.

RTGS.global plans to have completed and tested a pilot version of the new system by mid-2020 with a commercial rollout following in late 2020/early 2021.

The goal is to achieve a customer transaction speed of less than ten seconds on a 24/7/365 basis.

The Bill & Melinda Gates Foundation and Mojaloop

The Bill & Melinda Gates Foundation has invested heavily to help countries adopt real-time payment systems.

In 2015, the Level One Project was born to create a level playing field for everyone. It's based on principles designed to increase the adoption of digital financial services in countries where banking penetration is very low.

Combining data gathered in the field and innovative thinking informed by consumers' needs, the team at the Foundation developed one model for a country-level digital financial services system designed to bring the poor into the formal economy.

They initially created a working digital financial services prototype to demonstrate how the system works and more recently developed Mojaloop, a full stack open source software for financial services companies, government regulators, central banks, market infrastructures, payment processors, and fintech firms to accelerate the creation and deployment of interoperable payment platforms that can scale in serving the poor.

Mowali, a joint-venture between major African mobile network operators Orange and MTN, is the first attempt at a live implementation of Mojaloop.

Other Mojaloop projects include TIPS in Tanzania and Micro payment gateway in Pakistan.

Money transfer operators and money transfer hubs can also benefit from this initiative.

The role of distributed ledger technology (DLT) and crypto currency

No doubt, the emergence of Bitcoin is the spark that is enabling the next wave of financial evolution. Further, if fiat currency remains cumbersome, and the money system doesn't adapt to match the increasingly connected world, more transactions could continue to move to Bitcoin.

With the rise of Bitcoin, several fintechs started using the technology to provide money transfer services around 2013. None gained significant traction, though quite a few are still around having had some success whilst others closed or pivoted from being a remittance company utilizing Bitcoin to a Bitcoin wallet that allows customers to easily buy, hold, and invest in the digital currency.

There are two main challenges with using Bitcoin for international remittances:

1. It takes roughly 40 minutes for a block to be processed. This means that either the customer or provider is subject to any price fluctuation in Bitcoin, which is extremely volatile. Further, 40 minutes is not instant, which is the direction the money transfer industry is heading.

2. Liquidity in the receiver country. To use Bitcoin to transfer funds, the provider has to buy Bitcoin in the sender country and sell it in the receiver country. Whilst there isn't any issue buying Bitcoin in a developed market, often there isn't enough liquidity to sell large quantities of Bitcoin and get local currency in the receiver country.

Despite this, there are a whole host of companies using Bitcoin to transfer funds across the globe. There are many who believe in the decades to come, Bitcoin will stabilise and become a global currency.

Moving past Bitcoin, there are a few DLT and crypto currency initiatives that could succeed in moving money between countries more efficiently than the current system.

A word about Stablecoins

Stablecoins are crypto currencies designed to minimise the volatility of the price of the stablecoin, relative to some "stable" asset or basket of assets. A stablecoin can be pegged to a crypto currency, fiat money, or to exchange-traded commodities (such as precious metals or industrial metals). Stablecoins redeemable in currency, commodities, or fiat money are said to be backed, whereas those tied to an algorithm are referred to as seigniorage-style and are not backed.

For a more in-depth understanding read the World Bank's Distributed Ledger Technology (DLT) and blockchain report available at http://bit.ly/wb-dlt

Distributed ledger technology
or blockchain has the potential to
power the systems of the future.

**Imagine machines
paying each other, not just
automated but that they
truly become autonomous
and start acting
on their own behalf.**

The current players

Ripple and XRP

Ripple is a real-time gross settlement system, currency exchange and remittance network created by Ripple Labs Inc., a US-based technology company. Released in 2012, Ripple is built upon a distributed open source protocol, and supports tokens representing fiat currency, crypto currency, commodities, or other units of value such as frequent flier miles or mobile minutes. Ripple purports to enable "secure, instantly and nearly free global financial transactions of any size with no chargebacks."

Ripple has partnered with over 100 banks and payment networks providing settlement infrastructure technology. The company's global payments network RippleNet (xCurrent[4] and xRapid)[5] grew to more than 300 customers worldwide and includes a new strategic partnership with MoneyGram. Today, the network has customers in more than 45 countries and six continents, with payout capabilities in over 70 countries.

Ripple has taken aim at SWIFT with the hope of disrupting the incumbent. At the end of 2019, Ripple secured US $200 million in Series C funding that values the company at $10 billion.[6]

[4] Xcurrent is Ripple's answer to SWIFT's archaic messaging system. It allows for quick settlement for cross border payments but still requires nostro-vostro accounts to be held by participating banks.

[5] xRapid is Ripple's system for payment providers to power cross-border payments into emerging markets, where accessing local currency can be expensive.

[6] Ripple raises $200 million to improve global payments. Available at https://perma.cc/RC5F-JTZH

SWIFT

Not to be left behind, SWIFT successfully completed a proof of concept using DLT to address Nostro account[7] reconciliation issues in 2019. With 34 participating banks each with their own node deployed in the SWIFT DLT sandbox, the initiative was one of the most extensive blockchain PoCs and Hyperledger Fabric 1.0 implementations executed in the industry so far, both in terms of participant engagement and in terms of the scale of the infrastructure deployed.

Interledger protocol

Interledger is an open protocol suite for sending payments across different ledgers. Like routers on the internet, connectors route packets of money across independent payment networks. The open architecture and minimal protocol enable interoperability for any value transfer system. Interledger is not tied to any one company, blockchain, or currency.

The Interledger protocol is now run by the Interledger W3C Community Group.

R3 and Corda Settle

At the end of 2018, R3 launched a universal settler application to facilitate global payments on Corda, with XRP as the first settlement mechanism.

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[7] Nostro account: a bank account held by an Indian bank with a foreign bank (e.g. UK), usually in the currency of that country (GBP).

[8] The Corda Settler is an open source CorDapp that allows payment obligations arising on the Corda Network to be settled via any parallel rail supporting cryptocurrencies or other crypto assets, and any traditional rail capable of providing cryptographic proof of settlement. Uniquely, the Corda Settler will verify that the beneficiary's account was credited with the expected payment, automatically updating the Corda ledger. In the next phase of development, the Settler will support domestic deferred net settlement and real-time gross settlement payments.

R3, the world's leading developer of enterprise blockchain solutions for business, launched Corda Settler,[8] an application purpose-built to allow for payment obligations raised on the Corda blockchain platform to be made through any of the world's payment systems, both traditional and blockchain-based. XRP is the first globally recognized crypto currency to be supported by the Settler, bringing the Corda and XRP ecosystems into closer alignment.

Stellar - Developing the world's new financial system

Similar to Ripple, Stellar is a platform that connects banks, payments systems, and people. One major difference between the two is that whilst Ripple is for profit, Stellar is a non-profit run by the Stellar Development Foundation.

At its core, Stellar is a unifying layer between all payment systems and all currencies. As an open-source SWIFT-like network allows connected organizations to transact with one another, Stellar has the potential to link siloed financial institutions and services and reduce the friction that contributes to higher fees.

JP Morgan steps on Ripple's toes with their own blockchain cross-border payments system

More than 75 banks have teamed up with financial giant JP Morgan in regulated banking's biggest application of blockchain technology called Interbank Information Network (IIN). IIN offers an immutable blockchain ledger that parties can refer to when errors occur in transactions. This means that any of the links in the chain of a financial transaction can instantly consult the database for information they require, or request clarification of erroneous data directly. This streamlines the somewhat cumbersome 'daisy-chain' process that occurs currently, where messages have to be sent back along the chain between participants sequentially, expending extra time and effort.

JP Morgan also developed JPM Coin, a stable coin that always has a value equivalent to one US dollar, designed to make instantaneous payments using blockchain technology. Over time, JPM Coin will be extended to other major currencies as the product and technology capabilities are currency agnostic.

To differentiate between the two, IIN transfers information and not payments between correspondent banks. The JPM Coin, representing fiat currency, is designed to instantaneously transfer value.

Libra

In June 2019, Facebook announced Libra,[9] their attempt at solving payments. Libra is non-profit, run by the Libra association based in Switzerland.

Twenty-nine partners, including some of the biggest names on the planet, joined Facebook to form Libra as founding members.

However, it didn't take long before Libra ran into opposition from governments around the world, starting with the US Senate.

Subsequently, several high-profile companies, such as PayPal, eBay, Stripe, Visa, Mastercard and Vodafone, left the consortium. The general consensus is that Libra will fail without the involvement of the major payment players, as they bring essential, deep payments expertise, trusted brands, global acceptance and settlement networks, as well as the relationships with every major financial institution, government, and regulatory body around the world.

[9] Libra white paper. Available at https://perma.cc/8DC3-KATE

Backers of Libra argue it can help people outside the banking system by lowering costs for many kinds of payments and transactions; critics say it could disrupt the global monetary system and currency markets.

So what has changed?

The association recently shifted their plan in a move aimed at allaying concerns over disruption to the global monetary system.

Under the new plan, separate "stablecoins" would be created and pegged to real-world money such as the US dollar and the euro.

The Libra Association recently updated its white paper to make important changes to the cryptocurrency protocol. The association is no longer building a global stablecoin tied to a basket of fiat currencies and securities.

However, the Libra payment system will support only a few digital currencies, such as USD, GBP and EUR, which will have the same value in the country's respective currency (e.g. 1 USD, 1 GBP, 1 EUR). The Libra payment system will also support a combination of these digital currencies, LBR. Over time, the Libra payment system intends to support additional digital currencies.

In my view, this is just a way to appease regulators, but does not change Facebook's ambitions of "World domination" or for Libra to become a global currency. Once Libra has gained regulatory clearance, it will be much harder to stop them. This is so fascinating and we're going to see this play out right in front of us over the next year or two.

So, the question is, will all those financial institutions who exited Libra, eat their pride and queue up to re-join Libra?

Personally, I would not write-off Facebook. If they can't get Libra off the ground, they will go down the acquisition route. Mark Zuckerberg paid over the odds for Instagram ($2 billion) and WhatsApp ($19 billion), which are together easily worth over $100 billion each as part of Facebook.[10] This shows that Facebook has the appetite to acquire anyone else with signs of scale. The only caveats here are if Facebook are forced to break-up their services, or if they're blocked from acquiring a company similar to Libra that they could scale.

[10] As at 12 February 2020, Facebook is worth $590 billion. The value of Instagram and WhatsApp cannot be separated and therefore I am making an assumption.

Transparent systems

The latest entry into the space is Transparent Systems, a Seattle-based startup, which is a rewiring global financial settlements and moving money forward services.

Transparent is developing a real-time "cryptographic settlement" network and has closed a Series-A funding round that raised over $14 million, in addition to $8 million in seed financing it raised previously.

Concluding its beta program with a number of major financial services and fintechs in the US, the firm says it will use its latest funding to accelerate product development and engineering, as well as to start expanding outside the US.

Transparent Systems spun out of Vulcan Inc. in early 2018 at the direction of the late Paul Allen, co-founder of Microsoft, along with Shawn Johnson, the former chairman of the investment committee of State Street Global Advisors.

Transparent sets out to reduce friction in the existing financial infrastructure through a cryptographically secure and distributed real-time payments network. The firm takes a focus on B2B payments, and stresses on its website and marketing materials that it "creates solutions, not currencies." Its product should be ready for early production use later in 2020.

"Blockchain technology is rooted in decades of advances in distributed systems and cryptography, and it's at the center of banking and financial innovation today," said Joey Krug, co-chief investment officer at Pantera.

The Bank of International Settlements (BIS) has launched the BIS Innovation Hub

A new project designed to support central bank collaboration on new technology and to pool resources. They recently launched the third regional Hub centre in Singapore, the other two are in Switzerland and Hong Kong.

The Hub centre in Switzerland is working on tokenisation of assets, which has to do with the digital representation of those assets.

The specific application is to the securities market where the tokenisation will allow trading and settlement of securities by creating a single platform that works on distributed ledger technology, or DLT, that integrates securities trading and settlement in central bank money.

As part of this work, the project involves the tokenisation of cash itself on the same platform in terms of a wholesale central bank digital currency (or wholesale CBDC) - this development could have a huge impact on the money transfer industry.

Other projects being worked on are digital IDs as part of building a digital infrastructures for society and "open APIs", or open Application Programming Interfaces, which make banking apps talk to each other. The combination of uniform address formats and open APIs eliminates closed or segregated networks where users are trapped within the network of one provider.

“We’ve put a man on the moon, but why are we still not able to instantly send money across borders or perform a wire transfer at a bank on Sunday?

Perhaps in this decade, 50 years after we put a man on the moon, we’ll get there.”

Navin Gupta, Managing director, South Asia & EMEA, Ripple

The challenges that lie ahead

Two major challenges lie ahead for DLT players. The first is regulation and the second is acceptance by incumbents.

Regulatory issues have plagued start-ups looking to leverage DLT or blockchain in the financial services space. Slowly over time, regulators are getting more comfortable with the concept and a few pilots are emerging.

That said, some central banks, such as the Reserve Bank of India, continue to block any crypto currency in the country.

Once regulatory hurdles are crossed, the next challenge of integrating with the existing financial infrastructure remains. No matter how good the next generation of payment infrastructure is, it has to connect to the existing payment infrastructure to gain mainstream adoption.

Finally, cross-border payments pose a distinct challenge to Central Banks. Improving cross-border payment services involves more than technological solutions; standards and practices across jurisdictions must be coordinated to find efficient ways to connect payment systems. Enabling such solutions requires that domestic payment networks address AML/CFT concerns.

So who's going to win?

Will DLT-based solutions be able to outperform other technologies available in the payments space? Or will it be conventional technology driven by fast payment networks that are being increasingly adopted to facilitate real-time domestic payments? Solutions such as SWIFT GPI, RTGS.global and others could allow links between domestic fast payments systems, achieving real-time and low-cost transfers across borders.

Governing the coin: World Economic Forum announces global consortium for digital currency governance

In January 2020, the World Economic Forum announced the first global consortium focused on designing a framework for the governance of digital currencies, including stablecoins.

The global consortium for digital currency governance will aim to increase access to the financial system through innovative policy solutions that are inclusive and inter-operable.

Opportunities for financial inclusion will be only unlocked if the space is regulated properly and includes public-private cooperation across developed and high-growth markets.[11]

This could be just the initiative that is needed to really open up and mainstream the adoption of digital currencies - watch this space.

[11] World Economic Forum, January 2020. Available at https://perma.cc/QYD3-NFDK

Summary

Today, many payment networks remain siloed and disconnected. However, new payment infrastructure has been laying the groundwork for greater disruption. This includes real-time national payments infrastructure, distributed ledger technology and crypto currency.

- Payment infrastructure is critical to international remittances, but it remains costly, involves cumbersome processes, is only available during limited times and can take days to clear.
- There's been growing momentum in recent years for active real-time national payment systems, which have quadrupled in the last five years.
- Distributed ledger technology and crypto currency initiatives could succeed in moving money between countries more efficiently than the current system, yet two major challenges lie ahead: regulation and acceptance by incumbents.
- Could conventional technology fight back and beat the much hyped-DLT solutions? Only time will tell.

Part 2: Unlocking micro money transfers

Though micro money transfers are also known as low-value transfers, they are actually high-impact transfers. These small transactions are a lifeline and vital source of income for billions of people around the world. The impact that these transactions make to customers cannot be understated.

Part 2 focuses on the three factors needed to unlock micro money transfers. These are:

1. Simple and easy user experience
2. No minimum transfer fees
3. Targeting the consumers who need high-impact transfers

The third point is important, because a company like TransferWise who has one of the best user experiences—it's simple and easy, with extremely low minimum fees— doesn't target customers who really need to send high-impact transfers. Their advertising is in general targeting more affluent customers.

Chapter 4 introduces why micro money transfers matter and the current challenges with them. Chapter 5 examines disruption from other industries for money transfer operators to seek inspiration. Chapter 6 discusses the business model, its evolution, and potential new models for growth. Chapter 7 highlights the importance of the customer journey.

Chapter 4

Why micro money transfers, how they currently happen and current challenges

Why do micro money transfers matter?

Without a doubt, money transfer flows are a lifeline to millions of families, and unlocking micro money transfers will go even further. This chapter highlights the current trends in micro money transfers.

The disparity between currencies is one of the biggest reasons why micro money transfers matter. What's micro in a developed country (e.g. $20) goes a long way in a developing country. Even $2 makes a much bigger difference to the recipient than the sender.

IFAD's latest press release reports that money transfers represent just 15% of a migrant's total earnings, as 85% remains in the host countries and is either absorbed into the local economy or saved by the worker. However, the 15% that is transferred overseas has a disproportionate importance, as it often accounts for the largest part of a household's income. Without these regular payments, many people would fall below the subsistence level.[1]

[1] IFAD, June 2019. Available at https://perma.cc/6GXJ-9B9A

It's estimated that three-quarters of remittances are used for immediate needs such as food, housing, school fees, clothing and medical expenses. The remaining quarter, which represents over $100 billion, is usually saved or applied towards income-generating activities and projects. Remittances are therefore also about investment as well as consumption, which reinforces the need for better customer education and awareness to ensure that money works harder for those in need.

A sobering perspective on the need for a change in money transfer philosophy

I've heard of numerous instances where a parent didn't want to bother their child to ask for more money, so they didn't seek early intervention to a medical problem which resulted in serious complications—sometimes even death.

Knowing that it is expensive to send money, it's easy to justify waiting until the end of the month for the usual transfer and then going to see the doctor. Imagine the horror for the child, who had they known, would have transferred additional funds immediately.

In other cases, a family member dies because of a lack of money for medical treatment. The family then receives money for the funeral from their community, only to find out that had they received the money before their loved one's death, they could have paid for the needed medical treatment.

A reduction in fees on its own is unlikely to solve these common cases (these are not edge cases). A complete change in the philosophy of money transfer operators is what is needed. New products such as health insurance provided as part of money transfer will play a pivotal role.

Regular users open a money transfer operator's app once every 4-6 weeks.

Enabling micro money transfers will allow users to send money as and when they need to, increasing engagement, number of transactions and stickiness

Meet Faisal, a Bangladeshi migrant working in a London supermarket. He sends money home religiously every month as soon as he is paid. Often it is mismanaged or unexpected expenses come up and what inevitably happens is that after the middle of the month, the pinging starts—requests for more money start coming in—this proves to be a constant tension for him. Faisal would like to send a small amount, but he can't — it costs too much and if it is not digital, it takes too much of his time.

However, there is a clear transition towards micro money transfers already happening using the "traditional" model though only available to a small fraction of migrants.

Over the past five years, mobile money, a lifeline and vital source of income for poor communities in developing countries, has driven micro money transfers. In June 2013, less than 50,000 transfers were made to mobile money accounts.[2] The following year it was the fastest growing product and in 2019 the total value of mobile money-enabled international remittances processed was $7.3 billion.[3]

Groundbreaking research by the GSMA in 2016 showed that mobile money was, on average, 50 percent cheaper to send remittances using mobile money than using global money transfer operators. Data on the cost of remittances collected in August 2017 indicates that the cost of sending $200 via mobile money has continued to decline, to 1.7%, on average, where customers opt to keep their funds in digital form.[4]

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[2] GSMA 2013 State of the industry report mobile financial services for the unbanked.

[3] GSMA 2019 State of the industry report on mobile money.

[4] GSMA 2016 Driving a price revolution: mobile money in international remittances.

Many providers (Sendwave, WorldRemit, TerraPay, Mama Money etc.) have started to terminate funds into mobile money accounts and are responsible for driving this transition.

Others have tried to emulate their models without much success, and are often left scratching their heads.

Case study on Sendwave: send money with love

Sendwave's mission is to make sending money to Africa as easy and affordable as sending a text. It all began in 2014 when Drew got fed up going to a store and paying over 10% to send money for an NGO he was running in Tanzania.

So, he teamed up with Lincoln to build Sendwave, an app that lets users send money instantly from their smartphone to their recipient's mobile money account in Kenya.

Having started with a single corridor, United States to Kenya, Sendwave now let's their customers send money with love from the US, Canada, UK, Ireland, Italy, and Spain to East and West Africa.

The fee-free app-based service dominated the US-Kenya corridor, dislodging behemoths Western Union and MoneyGram as the sender of choice among Kenyan-Americans in sending money to Kenya. Some estimates put Sendwave's market share of the US-Kenya corridor at 60%. With over 100,000 customers, Sendwave is one of the world's leading remitters to East and West Africa.

How did they get there? When they launched in 2014, remittances to Kenya were very expensive (10% margin on FX rate plus a fee of $2.99 - $4.99). Sendwave were 70% cheaper with no fee (charging only FX margin). However, in my opinion, it was their user experience (UX) together with a strong commercial proposition that made them take-off.

I've tried several apps, and hands down Sendwave is the best experience I've had - delivering transfers in 30 seconds from your smartphone to recipient's mobile money account, when instant transfers wasn't even a thing.

Case study on WorldRemit: breaking down borders

WorldRemit was founded in 2010 by Dr. Ismail Ahmed, a refugee from Somalia and a whistleblower at the United Nations. Ahmed began developing WorldRemit while studying for an MBA at the London Business School. He said that the idea of an online money transfer service was partly influenced by his own frustrating experience of sending money to relatives in Somalia using offline, agent-based services.

As one of the first online money transfer firms to focus heavily on mobile-to-mobile remittances, on the sending side WorldRemit is 100% cashless.

For those receiving money, WorldRemit offers a wide range of options including bank deposit, cash collection and international mobile airtime top-up and mobile money.

WorldRemit was an early pioneer in connecting to mobile money and in December 2016 processed 74% of all international money transfers to mobile money accounts sent via international money transfer operators.[5]

Additionally, WorldRemit data shows that mobile money is the preferred way for their customers to send money to rural areas.

WorldRemit says that their mobile-to-mobile offering has fundamentally changed the way customers send money, enabling them to send smaller amounts instantly in response to immediate requests from recipients (see chart on page 79).

[5] WorldRemit data. Available at https://perma.cc/BV6R-CXLL

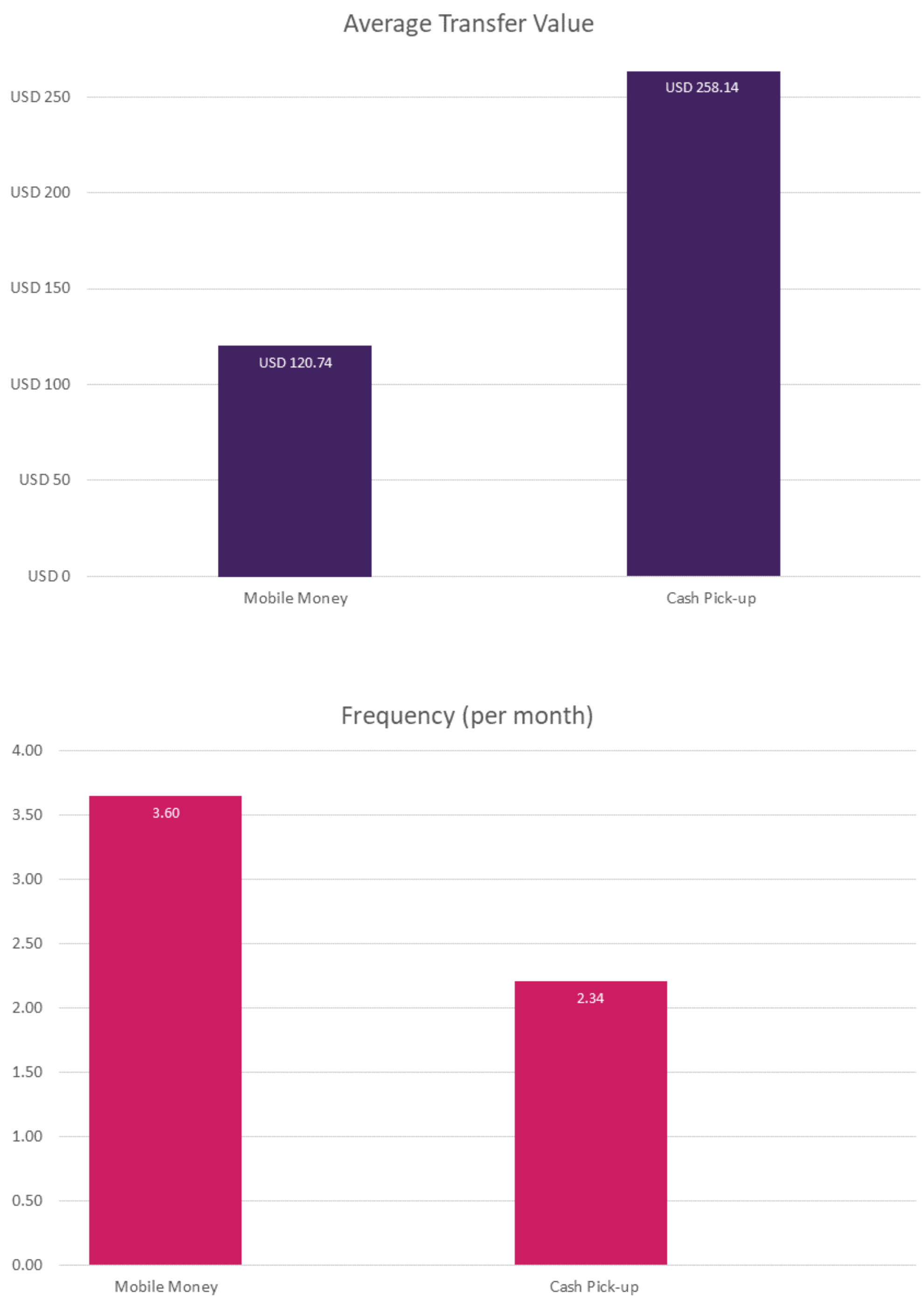

Figure 4.1 WorldRemit chart showing an increased frequency and decreased average transaction value of mobile money transactions.[6]

[6] Data provided by WorldRemit for this book

Case study on TerraPay: How inclusion drives policy and operation

TerraPay is the world's first mobile payments switch - a B2B transaction processing, clearing and settlement service for mobile wallets and bank accounts. Their best-in-class technology serves as the interoperability engine that enables the customers of their partners — who are licensed financial institutions such as banks, mobile wallet operators and money service businesses — to send and receive real-time transactions across diverse payment instruments, platforms and regions. TerraPay believes in the power of the mobile to transform financial inclusion, and are building the digital payment rails to fulfil their vision of being able to send money to any mobile.

Since its start in 2015, TerraPay has acquired more than 25 licenses to operate in over 60 countries in Africa, Asia and Europe and is expanding globally. TerraPay also offers a comprehensive suite of foreign exchange services. Their partners can request quotes and book FX trades for low value transactions in any currency pair, leaving it to TerraPay to source the best FX rates through its industry-leading market-making partners worldwide. This allows their partners to focus on their core business, while allowing TerraPay to drive value for their end user.

Globally, TerraPay enables more than 1.5 billion bank accounts and 200+ million mobile money accounts in over 50 countries to receive real-time cross-border money transfers.

TerraPay is a game-changer because it connects money transfer operators, mobile money networks and financial institutions to a simple, central platform where all payment players can reliably connect to any financial network, facilitating a seamless end-to-end customer payment experience.[7]

[7] Data provided by TerraPay for this book

Case study on Mama Money: the world's first social business money transfer operator

Mama Money is a company that provides a cool, modern, safe and low-cost way for migrants in South Africa to send money home to support their families, enabling intra-Africa remittances which totaled $17.6 billion in 2018.[8] Rather than looking at profit-maximisation, they directly assist people who don't earn a lot. Mama Money is designed to help African migrants, who left their homes and their communities in search of better opportunities, contribute better and more directly to their families survival and development.

The money sent home is mostly used for food, medicine, housing and children's education. Therefore, if less money gets stuck with the money transfer operator, more money arrives in the pockets of people who really need it. It's really that simple: lower money transfer fees will lead to better nutrition, better health care, better accommodation and a brighter future.

Africa's first completely cashless money transfer system, Mama Money uses the advances in modern technology to provide a purposeful and low-cost money transfer solution. And like many new money transfer operators, Mama Money doesn't add margin to their exchange rate.

Mama Money transaction volumes grew by over 300% in 2019 with the majority of money transfers being below $50.[9]

Mama Money will be launching new products in the near future including insurance and banking services geared toward the needs of foreign nationals in South Africa who struggle to get these services from traditional institutions.

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[8] World Bank data, Bilateral Remittance Matrix 2018 (updated October 2019). Available at https://perma.cc/QN3U-2GU3

[9] Data provided by Mama Money for this book.

International mobile airtime top-up industry, proxy to low-value transfers

Over the past 10 years, the international airtime industry has mushroomed. Here, senders can buy prepaid airtime for recipients. It is expensive as it costs between 30 – 50% to buy a few dollars' worth of airtime (e.g. you get $1.40 worth of airtime for $2). Given the minimum fees for a money transfer are between $3 and $10, prepaid airtime is a viable way of sending very small amounts of money back home.

As a result, almost all emerging market mobile operators provide this facility to their country's diaspora. In 2014, over $5 billion USD was sent via airtime top-up,[10] proving there is a clear demand to send micro-remittances home.

Why most providers consider micro-remittances too difficult to serve

The current business model is focused on high-value transfers due in part to high fixed costs and small revenue margins.

Additionally, the constantly increasing needs of customer due diligence increases provider costs. *Know your customer* (KYC) requirements, where each sender has to have their identity and address verified, along with *anti-money laundering* (AML) measures, *combating the financing of terrorism* (CFT) and sanction checks all contribute to the cost of on-boarding and cost of transactions.

The collection and disbursement of cash also carries high handling costs. It's fair to say that these micro money transfers terminating in cash will continue to be charged fees well into the future.

[10] Juniper research. Available at https://perma.cc/7C23-228L

But what if an already on-boarded sender wants to send $5 electronically? Here the cost to the provider is not a hindrance. However, the fact is that providers make little to no money (margin), so they require minimum transfer fees that makes it unviable for sending $5. Whilst there's no immediate financial incentive for providers to facilitate micro money transfers, they could be creating stickier long-term customers and therefore increasing the customer lifetime value.

Other ways to unlock micro money transfers

The last decade has witnessed an explosion of money transfer operators focused on digitising transfers, which has led to a huge expansion in networks and corridors that has driven a reduction in fees.

Airtime top-up and bill payments

Some providers allow senders to purchase airtime or pay bills. It offers their users another channel through which they can make micro money transfers. From a provider's point of view, it requires integrations with aggregators in the markets they operate in and gives them additional revenue from billers. It also enables them to build relationships with their customers that are beyond remittances.

Gift cards

Allowing senders to purchase local gift cards for recipients in another way to enable micro money transfers. Fintech's are starting to aggregate gift cards, which might make it possible with a limited number of integrations.

Remittance labelling

What is remittance labelling?

It is an amount of money sent to a recipient with a defined purpose. For example, the sender sends $100 for medical expenses. This money can only be spent on medical expenses. Another example is school fees.

How it works

While sending the money, the sender selects a label (medical, school fees, etc.) along with the recipient details. The recipient receives a message to let them know that they have received funds for the specific purpose. Unlike a normal remittance, the funds are not transferred directly to the recipient's bank account. Instead the funds are held in a virtual account.

- The recipient goes to a hospital or pharmacy and can spend the money. They do this in one of two ways—either a payment card (Visa/Mastercard or local scheme) is issued to them, or they scan a QR code.
- The system checks the merchant category code to check if the funds are being spent at a medical establishment, and the transaction is then appropriately accepted or declined.
- The sender can then be notified if they so choose to.

The technology and payment infrastructure exist in most countries, though in some it may not be widely prevalent.

Why it matters

In most cases, money is being sent to a family member. One can argue that the sender should be able to trust the recipient to spend it as the sender wants to. However, often that is not the case for various reasons. Enabling the sender to define the purpose of the funds can increase the amount of funds the sender is willing to send.

Additionally, in the example where the funds are labelled for school fees, incentives can be provided. A non-profit institution whose mandate is to increase the number of children going to school can provide a 20% uplift on the remittance labelled for school fees.

Many more use cases can be created to help improve the lives of recipients.

Sure, it is not foolproof, and the money could be withdrawn (by being in cahoots with the medical store) and used for a different purpose, but by and large most recipients will use it for its intended use.

For further reading, check out Dean Yang's research on the economics of development in the world's poor countries. He has ongoing research projects on financial decision-making among the poor, behavioral biases in economic decision-making, international migration, and migrant remittances.

Summary

Micro money transfers are a lifeline to millions of families. And there's a clear transition to enabling micro money transfers using the traditional model, through companies such as Sendwave, WorldRemit, TerraPay, Mama Money and several others.

- Micro money transfers are used for immediate needs such as food, housing, school fees, clothing and medical expenses. Transfers are also usually saved or applied towards income-generating activities and projects.
- Mobile money has driven micro money transfers in developing countries. In 2019, the total value of mobile money-enabled international remittances processed was $7.3 billion.
- Most money transfer companies consider micro-remittances too difficult to serve because their model focuses on high-value transfers due to high fixed costs and small revenue margins.

Chapter 5

Inspiration from other industries

The last decade has seen a huge amount of disruption in many different industries.

Analogy from the communications industry

Let's look at how communication has changed over the decades.

Pre-internet-era: up until the late 80s and early 90s, you had to wait by a public telephone for an operator to connect your call for a very limited call duration or wait one month for a letter to arrive by mail. Telegrams were used to communicate urgent news.

Internet-era: as email and instant messaging (AOL mail, ICQ, MSN messenger, Yahoo messenger and Skype) took over, communication became easier. Those of you who lived abroad in the noughties will be able to relate to this.

Mobile internet-era: Pandora's box opened to instant messengers with photos, videos, voice over Internet Protocol (VoIP) audio calls and video calls.

Just ten years ago (pre-WhatsApp), sending international SMS messages was extremely expensive—$0.50 for 160 characters. With the ubiquity of smartphones, you can chat with anyone anywhere in the world for free. Today, you can video call for free. How is this possible? It's adjacent business models that allow services to be provided for free.

Recently, there has been increased scrutiny over the user data collected in return for the free services provided. Whilst this is much needed to keep the internet players in check, there are perfectly legitimate ways to provide customers services that are paid for by advertisers, for example.

Analogy from the music industry

In 2001, iTunes and Apple disrupted the music industry in two ways: the first was digital distribution and the second was pricing—$0.99 per song, compared to $10-15 for an album, putting cassettes and CDs out of business. Fifteen years later, Spotify disrupted Apple by moving from a pay-per-song model to an all-you-can-eat, freemium model. Free (with sponsored ads) or premium (no ads and other benefits) subscription.

Spotify's concept wasn't new, as radio stations have played music with ads since its early days. What was new was that on-demand became more prevalent, and Spotify came to the fore using a subscription-based freemium model to attract customers, creating a very large base and charging a percentage of their base for premium features.

At the end of 2009, Spotify had 7 million registered users but only 250,000 paid subscribers – just 3.6 percent, which by February 2020 had grown to 271 million users and 124 million paid subscribers, an incredible 45.8 percent paying users.[1]

People who pay tend to be regular users who appreciate the value they get for what they pay for.

[1] Spotify Q4 2019 results. Available at https://perma.cc/W9ML-VETF

Not to be left behind, Apple responded with Apple Music, a similar subscription-based model (without a free advert based tier). Apple is a rare company who has been able to respond to being disrupted and this is largely due to their walled-garden ecosystem.

Analogy from the financial services industry

It's easy to believe that this can be possible for non-financial services. However there are several fintech's who are moving away from transaction fees. One example is Silicon Valley fintech start-up Robinhood, a mobile-trading app who recently topped 10 million accounts even as industry follows in its free-trading footsteps.[2] Robinhood has grown rapidly from one million subscribers in 2016 and six million users in October of 2018. Robinhood landed a $8.3 billion valuation after raising $280 million (total $1.2 billion) in May 2020, its latest funding round.

So how does Robinhood make money? Through a variety of other means – **mainly from net interest earned on deposits**, rebates and making customers pay for premium accounts (Robinhood Gold - which starts at $6 a month, according to their site) to gain access to exclusive investment options.

Looking at others in the same segment, revenues are from net interest are E*TRADE 67%, Chares Schwab 57%, TD Ameritrade 51% and Interactive Brokers 49%.

That secret again, when transaction fees disappear (zero or near-zero FX margin) the best way to earn revenue is **net interest** from holding customers' funds by offering a wallet, account, savings and asset management products.

[2] In Q4 2019, all of the major retail brokers followed suit and dropped commission fees on stock trading to keep up with the trend that Robinhood set.

While writing this book, I learnt something very interesting—banks make approximately a third of their revenue from their treasury function, which often accounts for 60–100% of their profits. Let me unpack that for you. Banks typically make their revenue from three buckets: interest from their loan portfolio; transaction and service fees; and income from treasury. The first two come with huge costs of running the banking operations, whilst the treasury function has a tiny fraction of the total staff, and therefore almost all the income from treasury is profit. Many banks make very little profit if any from their core banking operations and as a result, their treasury function accounts for 60–100% of their profits.

What can the money transfer industry learn from these industries?

Okay, so ads won't cover the costs nor provide similar or greater margins for money transfers. But advertising isn't the only asymmetric business model in town.

Both senders and recipients have other financial and non-financial needs. The question for a money transfer operator is, how can you better serve your customers?

- **Investments and borrowing:** for example, many migrants remit money to their home country to make investments, either in financial markets or in property, which often needs a mortgage too (all of which can be provided via partnerships, detailed in chapter 10 and 11). This is especially true for migrants who move between different countries and those who intend to return to their home country. In both cases, making investments in the country they are currently living in doesn't make sense. Additionally, an emergency loan for 10-20% of their average monthly remittance or a longer-term loan for 100-150% of their average monthly remittance for something like school fees could both be valuable to several users.

- **New ways to buy things:** another example, a greater proportion of migrants are moving abroad for a few years before returning to their home country, so they aren't upending their lives to move to a new country. The ability to pay a bill could be valuable, either their own bills or the bills of their elderly parents.
  Additionally, buying products or services seamlessly from ecommerce sites in their home country is another opportunity. Whilst users can log-in to their home bank accounts remotely and make bill payments or an ecommerce payment, there is a fair amount of friction involved and money transfer operators can provide a much better experience to their users.

These additional services drive user engagement and activity. The more a user interacts with your app, the more likely they are to use it at the end of the month to send their monthly transfer.

Summary

In the last decade, many different industries have been disrupted. The money transfer industry should seek inspiration from these examples to determine how they can better serve their customers.

- Before WhatsApp and other messaging services, sending international SMS messages was extremely expensive—$0.50 for 160 characters. With the ubiquity of smartphones, you can chat with anyone anywhere in the world for free. How is this possible? Adjacent business models.
- In 2001, iTunes and Apple disrupted the music industry with digital distribution and per-song pricing. More recently, Spotify disrupted Apple by moving from a pay-per-song model to an all-you-can-listen freemium model.
- Several fintechs are also moving away from transaction fees. One example is Robinhood, a commission-free mobile investing app.

Chapter 6

Business model innovation

The evolution of the business model over the past 20 years

As little as 10 years ago, the minimum fees to send money were around $10 with a money transfer operator and $20 with a bank. That meant sending even $200 cost more than 5% before adding the exchange rate margin, which could have been another 5%. Increased competition slowly decreased minimum fees, particularly in competitive markets, such as India, Mexico and the Philippines.

That said, some corridors are still very expensive, particularly intra-African transfers, where costs can be more than 20%.

What are the cost drivers?

Like any business, money transfer operators have conventional costs—marketing, customer acquisition, retention and service, operational expenses, etc. In addition, they also have three very specific costs that are currently hard to avoid:

1. **Customer due diligence:** This includes know your customer (KYC), anti-money laundering (AML), combating the financing of terrorism (CFT) and sanction checks.

2. **Cost of capital:** This includes having to pre-buy funds in various currencies and hold them in destination countries; and

3. **Currency exposure:** Being subject to exchange rate fluctuations in their pre-funded accounts. The more volatile the currency, say a Indonesian Rupiah or Argentinian Peso, the higher the provider's exposure. Note the British Pound experienced a 17% decline against the US dollar due to the UK's inexplicable decision to leave the European Union and has remained fairly volatile since.

The first specific cost can't go away completely and while the requirements are only going to get more onerous over time, as regulators do more to protect customers and reduce misuse of funds, that said, thanks to technological advances, the cost of compliance has reduced substantially as the industry moved from a manual process to a digital one.

Players such as Onfido, Identity mine, Veriff, Yoti and others are providing cutting-edge solutions on the front-end that allow progressive money transfer operators to verify their customers' identities using a photo-based identity document, a selfie and artificial intelligence algorithms. The cost is a fraction of manually verifying customers' identities.

Additionally, a new entrant Knabu is creating a back-end solution to provide regulatory reporting by cryptographically proving the audit trail when the regulator comes knocking, providing further savings.

However, the challenge is in trying to identify real financial crime activity or participants in financial crime, and getting better at removing false positives. False positives is what drives costs up as they often need manual intervention. Predicting a 'match' is a false positive and processing it quickly and effectively will drive down costs.

Firms such as Comply Advantage, Trulioo, LexisNexis and others uses data science and machine learning to help you fight financial crime – scanning financial sanctions by governments all over the world to restrict or prohibit trade with foreign targets which are involved, or suspected of being involved, in illegal activities.

As systems continue to get smarter using artificial intelligence and machine learning, those providers who want to stamp out money laundering and terrorism funding can do so with relative ease and costs to monitor transactions will drop significantly.

The second and third costs are due to poor payment infrastructure. Forty to fifty years ago, the current infrastructure of correspondent banking was state of the art. Today, it's antiquated. Both the banking industry and its regulators have been slow to react. So much so that crypto currency and distributed ledger technology are forcing them to change.

Today, instant transfers happen when the funds are simultaneously received and paid out. For example, when a sender goes to a kiosk and transfers money, the recipient standing at corresponding kiosk can quote the transfer number and immediately collect their cash in the local currency. That's because the transfer company pays out from their funds that were already in that country (pre-funded currency account). The amount they have in the sender's country increases and the amount in the recipient's country decreases.

Periodically, their treasury department will re-balance their funds. The funds received from the sender do not move in real-time to the recipient.

New technology (detailed in chapter 3) allows for funds to move in real-time. It's only a matter of time before this becomes mainstream. This will drive down both the cost of capital and currency exposure, lowering the cost of digital transfers.

5-10 trillion US dollars are stuck in pre-funded nostro account across the world creating systematic risks, barriers to growth and in-turn high cost of remittances

The current challenges with the existing business model

The existing business model works on a percentage basis. While in competitive corridors, such as India, the percentage has come down, no one has shifted to a flat-fee model. Why?

Two challenges come to mind. First, it would leave a lot of money on the table for high-value transfers and second, no one has figured out a viable alternative revenue stream to substitute their current revenues.

Potential new business models

Despite the current challenges, there are three potential new business models that could shake up the industry.

- Subscription model, for power users
- Freemium model
- Asymmetric model, where revenue is derived from additional products and services

It's probably a combination of the above models that will prevail.

Subscription model

As smartphone growth slowed, Apple has shifted their business model towards offering services (iCloud storage, Apple Music and Apple TV+ to name a few).

Revenue derived from services has grown from 24.3 billion in 2016 (11% of total sales)[1] to 46.3 billion in 2019 (18% of total sales).[2] In this case, they didn't have to sacrifice or cannibalise any of their existing revenue and as a result their share price soared to record highs.

It's always hard to pivot when you have to cannibalise your own revenue. As mentioned, Kodak was too busy selling film couldn't focus on digital cameras, even though they had invented them. This missed opportunity ultimately led to its demise.

In the last five years, so many industries have pivoted to a subscription model, including Microsoft, who instead of selling software as one-off costs, now charge a monthly subscription fee to access Office365. In fact, the subscription model has proved so successful for Microsoft, it transformed the business and helped it join the $1 trillion club, up by 230% since 2014 when Satya Nadella took over as CEO.

Given that most people who send money home do so regularly, has a money transfer operator ever tried a subscription model? Not to the best of my knowledge.

The money transfer industry has been extremely slow to innovate with it's business model. With the exception of a handful, very few provide additional services that could provide an opportunity to change their business model.

That's about to change. In the next five years, we will see a great deal of business model innovation driven primarily by new entrants into the industry. This will include Facebook and Amazon (who have a huge FX operation due to cross-border commerce on their platform), as well as a whole plethora of new start-ups.

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[1] Apple data (10-K September 2016), page 28.
Available at https://perma.cc/DS93-UXSS

[2] Apple data (10-K September 2019), page 22.
Available at https://perma.cc/ZWM5-T4AD

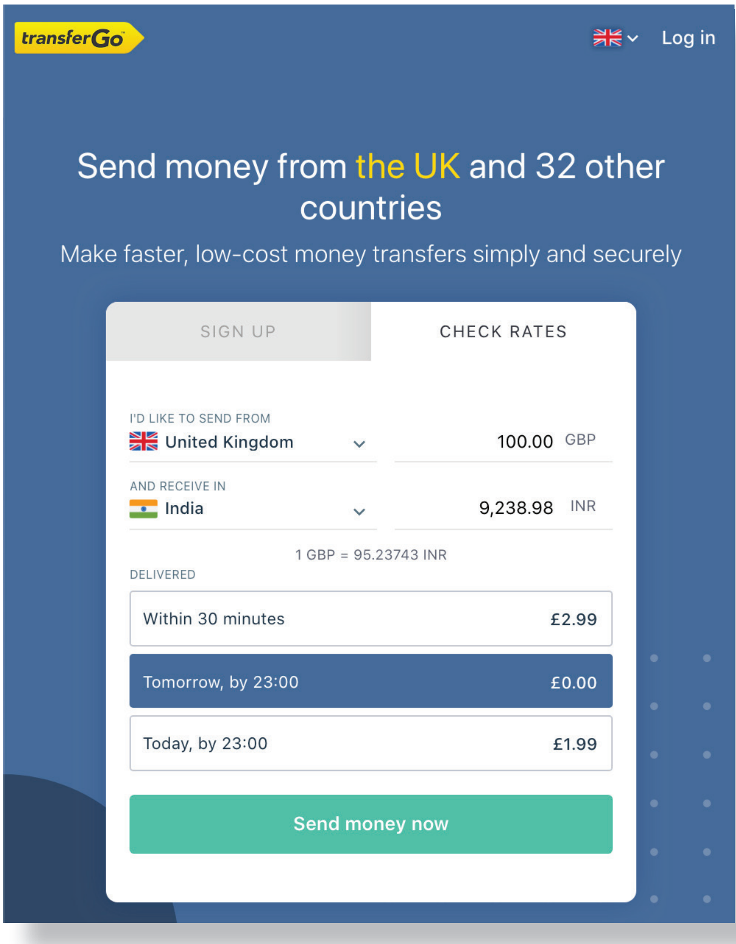
Freemium model

There are two types of freemium transactions that could easily be tested and implemented:

1. Slower delivery transfers – as compared to instant or real-time transfer
2. Low-value transfers – below $200 per month, free and instant. Free meaning free, with no margin added to the exchange rate.

In the above two scenarios, the premium users would pay for speed or high-value transfers.

TransferGo, a UK-based money transfer operator, currently uses a slower delivery model. Whilst this is an innovative first step, they are still making their margin on the FX spread.



Asymmetric model

Asymmetric business models create an unfair advantage. Asymmetric business models are based on the economics of complement. In economics, a complement is a good that is dependent or requires use of another product.

A classic example of an asymmetric model is Google or Facebook. They offer several products for free and make their money from advertisers who are interested in targeting these users. It started with text and display ads based on keywords (search results) and over the last decade, has become extremely sophisticated based on all the data these tech giants have collected on their users. The data allows for better targeting and therefore commands a higher fee per ad.

It is this model I think the money transfer industry will eventually gravitate towards. Remember the secret I shared at the start of the book? When transaction fees disappear (zero or near-zero FX margin) the best way to earn revenue is net interest from holding customers' funds, by offering a wallet, account, savings and asset management products — the beauty is that these funds then earn you revenue while you sleep. TransferWise, Revolut, Remitly and Chipper Cash have started moving in this direction. Today, all money transfer operators use their own resources to pre-fund accounts. A day will come when this is reversed, and net funds held will belong to customers.

A money transfer service is a natural fit with an investment option to facilitate savings but will need a brokerage or banking license (either directly or via a partner). If you think the sums are too small to matter, remember that according to IFAD, annually over $100 billion, is usually saved or applied towards income-generating activities and projects.

Chipper Cash: earning revenue from merchants

Chipper Cash has developed an easy, affordable cross-border payments platform that is taking off across the African continent. Already present in six African countries (and counting), the company is a model for how technologies and user interfaces can be designed to include low-income, remote populations.

Chipper Cash has more than 600,000 active users and has processed more than three million transactions on its no-fee, P2P, cross border mobile money payments product.

Users are provided with wallets and funds are stored on Chipper Cash's system until they are needed. Yes, you guessed it - **net interest** is one of their revenue streams.

The startup also runs Chipper Checkout: a merchant-focused, fee-based C2B (customer to business) mobile payment product that generates the revenue to support Chipper Cash's free mobile-money business.

"By offering our product for free, we're not in a pricing war or competing on a dollar-to-dollar basis. We're in a pure utility war on who can provide the most value to our users. We're quite comfortable with our position, and our long-term value proposition will speak for itself over time,"

- Ham Serunjogi, co-founder Chipper Cash.

Being free is a key differentiator for Chipper Cash in an otherwise crowded payments space.

Similarly banks also use an asymmetric model by offering a free current account and making revenue from other financial products. Typically banks make their money from intermediating funds. They pay a certain percentage for deposits and earn a higher percentage for lending out those funds. The difference is their margin (revenue) also known as net interest.

Bitsika: earning revenue from float and merchants

BitSika is simple to use remittance platform which aims to provide quick money transfer services to users across the globe. Created mainly for Africa, to help curb the high-cost monetary transactions, the app also provides remittance services to any user where a user can receive payments, donations and funding from anyone on earth at no cost or hidden charges.

All one needs is to download their app onto their phones and sign up, each user is assigned with a username starting with a Dollar Sign (e.g. $joseph, $atsu, $mary, etc.).

With no flat fees, no percentage fees, and no exchange rate manipulations, BitSika aims to make money by incentivising their users to keep money in the app. As more users come on board, their reserves will increase and they can earn revenue from interest on fiat and crypto reserves. Another source of profit will be percentage charges from their Merchant API for businesses that want to collect money from users from all over Africa and beyond using BitSika credits.

In chapters 9 and 10, I explore various products and services money transfer operators could offer to derive additional revenue and prepare themselves for the inevitable, when revenue from money transfers is zero or near-zero.

Summary

The existing business model for money transfer operators works on adding margin to the FX rate on a percentage basis. Despite the current challenges, there are three potential new business models that could shake up the industry: subscription, freemium and asymmetric.

- Many industries have pivoted to a subscription model, where instead of selling one-off products or services, they now charge a monthly subscription fee.
- With freemium models, there are two types of transactions that could be tested and implemented: slow delivery transfers and low-value transfers.
- Asymmetric business models are based on the economics of complement. One example is where providers offer users several products for free and make money from advertisers interested in targeting these users.

Chapter 7

The front-end

As sending remittances digitally increases, improvements in the front-end, or user experience, will be critical to unlocking micro money transfers. Today, only a small fraction is sent digitally, whilst the vast majority is sent by the sender visiting a kiosk and transacting over the counter. This is partly because senders have become accustomed to sending money this way for years, and also partly because very few providers have nailed the user experience.

Reducing friction in payments is no doubt a challenge. The on-boarding process is dictated by customer due diligence requirements as defined by the regulators in the sending and receiving countries. Additionally, security is critical and therefore adds additional layers of complexity.

A good user experience is one where the customer isn't confused, and finds it easy to complete the flow with the least amount of input. In the early days of eCommerce, entering card details and billing address was nothing short of a nightmare, especially on a mobile device. PayPal solved that for their users by allowing them to enter their email address and a password. More recently, Apple Pay, Android Pay and other services make it even easier to complete a payment. In all these cases, users have stored their card or account details, which gets charged when they authenticate the payments.

All international remittance providers need to focus on providing their users with a great experience. It's shocking how bad some user journeys are. Cost of customer acquisition is expensive and after getting potential customers to the point where they downloaded your app, losing them right after that point, before they can initiate a transaction, ends up wasting the upfront investment. Improving your on-boarding requirements will be important to remaining competitive.

User interfaces have impacted several aspects of our lives.

Digital remittances grew three-fold from $60 billion in 2014 to $183 billion in 2017 and are estimated to grow to $277 billion by 2020.[1] First via the web on a desktop, then from a mobile phone. Whilst today, digital remittances are sent via a website or a mobile app, there has been a sea change in the customer's user experience.

In the past ten years, user journeys have evolved from fairly clunky and cumbersome to elegant and simplistic, as user experience design principles become more and more of a hygiene factor when it comes to sending remittances.

[1] World Bank data. Available at https://perma.cc/3CH8-KH32

Design by committee just doesn't work.

It leads the process down the path of inexperienced decisions and misaligned opinions

Design principles for smartphone apps

1. **Allow users to explore your service before registration through splash screens** – these screens are commonly used and are a great opportunity to engage your user and explain why they should bother using your app. There is nothing worse than opening an app and being asked to register straightaway.
2. **Embed simplified registration within the first transaction** – even after you have introduced your service using splash screens, avoid going straight to registration. Allow users to create their first transaction, select a currency pair, the amount, who they want to send it to and then ask for their registration details.
   Users expect to provide their details at some point, and asking for them after you demonstrate value (e.g. by showing them the exchange rate) is generally more valuable to a user. Also, it's best to reduce the number of fields the customer has to fill to the bare minimum required.
3. **Flatten menu hierarchy** – firstly, don't use the dreaded hamburger, the three lines that commonly make the symbol for menu. Users like to go directly to the thing they need done, sometimes referred to as 'shallow' navigation, allowing users to directly navigate to what they want. Prioritise important and most frequent actions, keeping the home screen simple and clear.
4. **Use visual cues and reduce text** – users prefer visual cues over text. Visual cues should be selected carefully to link to the user's experience. There should be enough visual detail to communicate, but not too much to overwhelm them.
5. **Use industry best practices** – follow app guidelines to make interactions work the same way as they do with popular apps, this is helpful as users can rely on muscle memory and familiarity.
6. **Design differently for iOS and Android** – your app shouldn't

be exactly the same on both platforms, as each have their own popular ways of interacting that users are accustomed to.

7. **Auto-fill from the address book** – if you're asking for the recipient's phone number, chances are that's already in the user's address book – yes there are cases when phone numbers are not stored in country code format, but your app can ignore those numbers to avoid any confusion. It also reduces key-punching errors.

8. **Use algorithms to help users check transactions** – for example, providing a cumulative total sent to a particular recipient and the date of last transfer helps the user confirm that he or she is sending the money to the right person.

9. **Allow users to easily cancel a transaction** – if a user realises they made a mistake, they should be able to easily cancel the transaction. It's very frustrating to figure out how to cancel a transaction when you're in a panic.

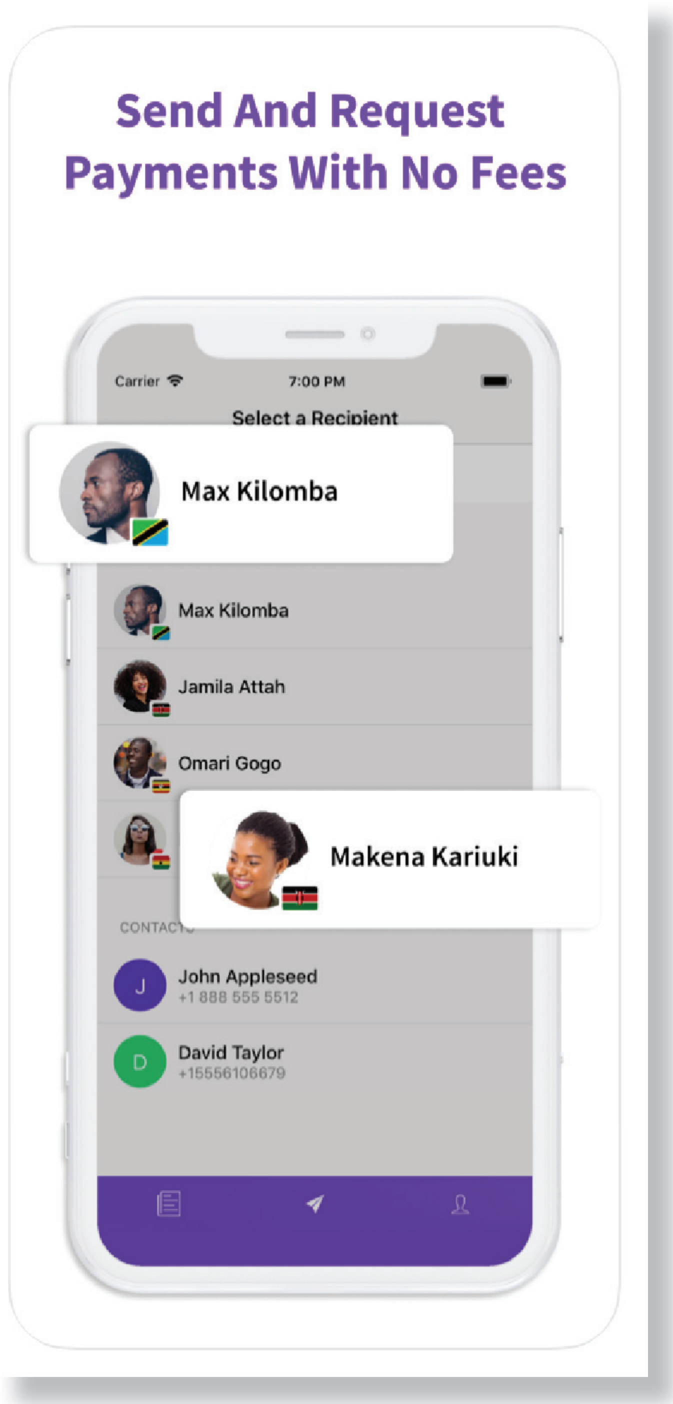
10. **Allow users to easily repeat transactions** – most people send money to the same recipients frequently. Allowing them to create favourites and/or duplicate a previous transaction helps make it easier for the user.

11. **Use in-app splash screens** – you can also make use of splash screens in the app to explain how something works (for instance, the first time the user sees a particular screen), and for each subsequent time, the user can simply press an icon for it to appear again. Users should not have to exit a transaction in-progress to seek helpful information.

12. **Provide the right keyboard** – first, the keyboard should auto pop-up when the user is required to enter information. Second, the keyboard should be numeric if all they need to enter are numbers – asking the user to toggle their keyboard to enter numbers is adding more friction.

13. **Provide full transaction details on one screen to finalise the transaction** – the user has just been through multiple screens, so it's important to display all the details on one screen for them to review. This will allow them to build confidence.

14. **Provide an easy way for users to share your app with their friends and family** – everyone wants viral growth. This one is basic, but so many apps overlook it.



Chipper Cash: obsessed with customer experience

Its user interface is simple, easy to navigate, and intuitive for those who may only have used their phone for social media like WhatsApp. This focus on user experience was a priority for the founders.

According to co-founder Maijid Moujaled, "Straight from the beginning, we've placed an immense focus on the customer. Ham and I have been obsessed with customer experience. At 2:00 am in San Francisco, Ham would call our early users in Uganda while I was still in bed (we were sharing an apartment at the time). One part of me was just asking Ham to stop making 2:00 am customer calls if he sees an error, but the other part of me would recognize that level of dedication. Those are the moments when it hit me – we're going to succeed, and we're going to obsess over customer experience."

This focus paid off, resulting in a product that customers love – as evidenced by the company's impressive user growth rate. As Maijid says, "When we meet our customers, they tell us how easy the app UI (user interface) is, and how clear it is to understand. I think that shows in the product. 'There are many apps, but no one does it the way you do it – other apps don't have that kind of journey, that clarity' – this is the kind of feedback we've gotten from our customers."

Ham adds, "Here's a fun one we once heard: 'Sometimes it feels like there is butter in the product- it's that smooth!'"

If you're an incumbent reading this, I hope you know that design by committee just doesn't work. Look at Chipper Cash to see what you're really up against when it comes to providing a great user experience.

User interfaces and user experiences will continue to shape remittances, and below are a few ways I expect the interface will continue to evolve.

Remittances embedded in messaging apps

Giving senders the ability to send money from a messaging app is a natural next step. The conversation is already taking place there, so the ability to hit one button to send funds makes it very convenient. Several integrations are live, particularly on Facebook Messenger, though due to the pricing model, people are not able to shift their mindset and instead stick to sending money once a month at which time they are more likely to use a website or mobile app. Facebook's Novi, which will be available in Facebook Messenger and in WhatsApp is looking to provide a seamless experience with a zero-fee model.

Western Union Connect

The company launched the Western Union Connect service in October 2015, following partnership agreements with major instant messaging apps WeChat and Viber. The partnership allows WeChat users to send up to $100 to China, the US and 200 other countries, while Viber users can send up to $100 for $3.99 plus exchange rate fees, with that fixed fee increasing the more money is sent (up a limit of $499).

Voice interfaces

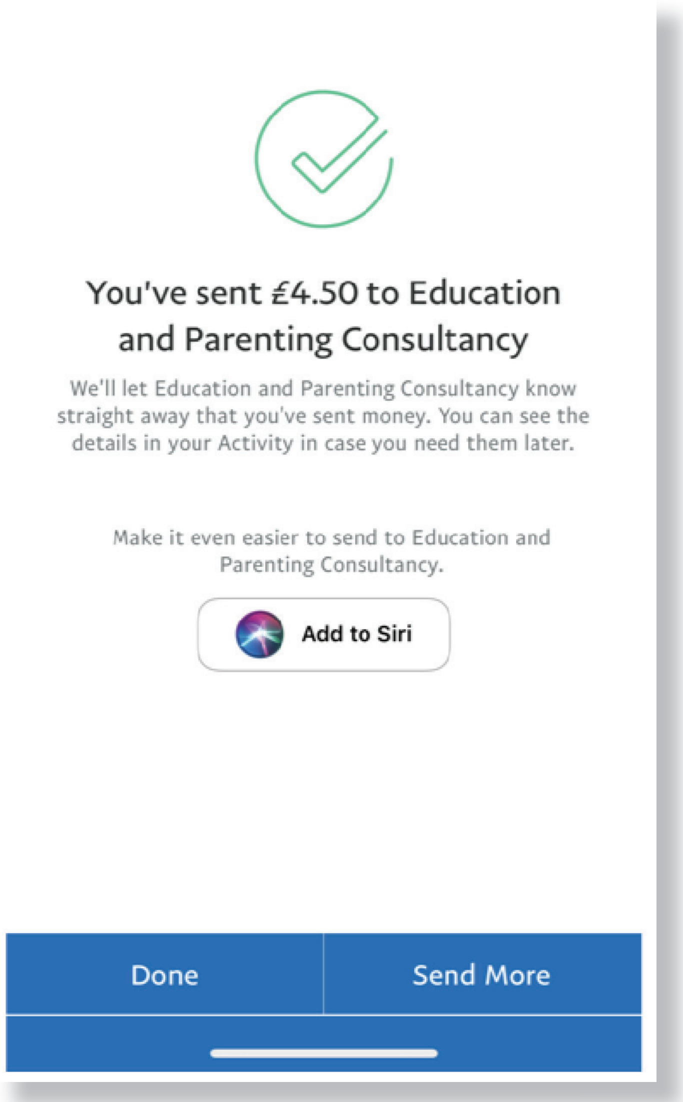
Voice interfaces are also gaining momentum. Each of the big four players have a voice assistant. Apple has Siri, Amazon has Alexa, Google has Google Assistant (which is also available on feature phones using KaiOS) and Microsoft has Cortana (which hasn't really taken off and seems to be on life support).

“The first thing people want to do with digital is talk to each other, then they want to pay each other.”

Ignacio Mas, Executive Director at the Digital Frontiers Institute.

It’s only a matter of time until you can just say:

“Hey Alexa, send mum $20.” And the funds are transferred to a bank account that you have already specified.



This is likely to happen first for domestic transfers, as these are free and don't cost any extra if I send $20 x 10 times or $200 once. When international remittances figure out a business model that unlocks low-value payments, the use of chat and voice interfaces will gain popularity.

PayPal have already introduced this on iOS—after a transaction, they prompt you to add a Siri phrase. Then in the future when you use that phrase, PayPal triggers the transfer.

Summary

Improvements to user experience will be critical to unlocking micro money transfers and especially to remain competitive. A good user experience is one where the customer isn't confused, and easily completes the flow with the least amount of input.

- In the past decade, user journeys have evolved from clunky and cumbersome to elegant and simplistic, as user experience design principles become more and more of a hygiene factor for sending remittances.
- This book outlines 14 design principles that are critical for smartphone apps, from a flattened menu hierarchy to allowing users to easily repeat transactions.
- Giving senders the ability to send money from a messaging app (or through voice interfaces) is a natural next step. The conversation is already taking place, so hitting one button to send funds makes it very convenient.

Part 3

Future proofing your business

The search for new revenue streams has begun with several money transfer operators launching new products.

TransferWise is leading the way, having adopted a platform approach (detailed in the next chapter), opening their platform to others, as well as offering new products as they get closer to making their mission a reality: 'Money without borders - instant, convenient, transparent and eventually free.'

Have you started thinking about evolving your business beyond adding more corridors and payout options? Were you one of the recent money transfer operators who partnered with Alipay, enabling consumers to use your app or website for international remittances to the Alipay app? That's great. But this is old school thinking and whilst these partnerships are needed, they aren't going to save your business.

In this section, I detail the various routes a money transfer operator can take to create new revenue streams along with examples of some early success in the market.

Chapter 8 looks at how the platform approach is opening access and driving innovation. Chapter 9 explores additional product offerings that money transfer operators should consider. Chapter 10 examines neobanks, especially for migrants, and automating money. Chapter 11 breaks down new and existing revenue models and finally, Chapter 12 highlights the important relationship between money transfers and financial inclusion.

Chapter 8

Taking a platform approach

Similar to 'banking as a service', "remittance-as-a-service' will take away the hassle of FX and liquidity management and allow money transfer operators to focus on serving their customers. Pangea Connect and Nium are the first to open their platorms.

Steve Jobs originally envisioned the iPhone as mostly a phone. The origin story of the first iPhone reveals that Jobs was just trying to make a really cool phone. "We want to reinvent the phone," said Jobs at the 2007 keynote. "What's the killer app? The killer app is making calls. It's amazing how hard it is to make calls on most phones." The first iPhone shipped with Apple's first-ever apps for music, photos, SMS texting and without the App Store, in fact, because Jobs didn't trust third-party developers.[1] Imagine if the Apple App Store was closed.

Apple's board played a huge role in convincing Steve Jobs to open the App Store, which was opened on July 10, 2008, with an initial 500 applications available. As of 2019, the store features over 2 million apps, with over 180 billion downloads,[2] and over $100 billion in revenue.[3]

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[1] The One Device: The Secret History of the iPhone, Brian Merchant

[2] Statista, November 2019. Available at https://perma.cc/UG72-ZUMC

[3] TechCrunch, June 2018. Available at https://perma.cc/R3GF-JCFJ

How platforms are opening access and driving innovation

The rise of platforms has disrupted and transformed virtually every industry. Platforms have created an incredible amount of value for the businesses who have adopted them. Initially, platforms were built to serve a business, though it wasn't long before opening access proved to be a significant game changer. In the payments space, PayPal was one of the first to open access, however even they were out innovated by Braintree (who they bought) and Stripe who both used next generation APIs to make it super easy for developers to integrate. By providing access to smaller players, these companies enable the long tail of providers to focus on micro niches that bigger companies can't cater to.

This is beginning in the remittance space, where some remittance providers are offering services to banks, for example, by allowing customers of partner banks to send international remittances without leaving their bank's app.

TransferWise powers remittances for Monzo and N26 in Europe for sometime and recently three new banks in North America fully integrated TransferWise to power international transfers for their customers. A new business focused bank Novo in New York, Stanford Federal Credit Union in California, and EQ Bank in Canada all rolled out international payments through TransferWise for their customers. So far, their customers have already saved tens of thousands of dollars by sending millions abroad through TransferWise.

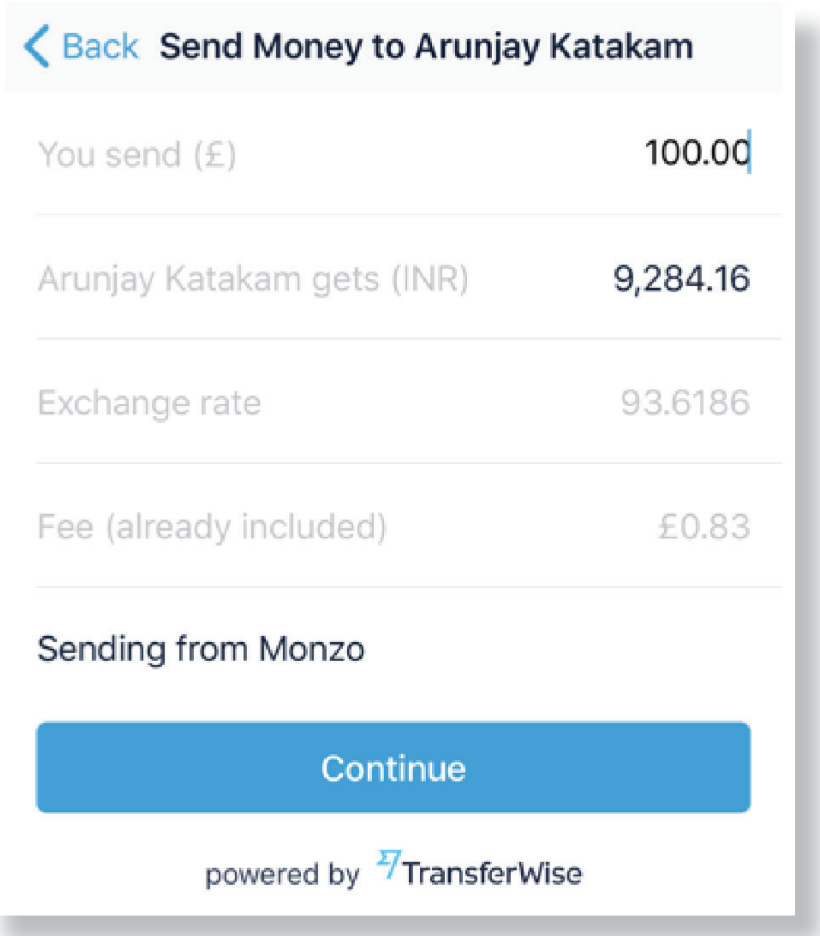

Figure 8.1: Send Money To …

Another opportunity for remittance companies is to open their platform to allow others to use their infrastructure.

Using the App Store as an example, here are the core attributes of the platform:

1. Multi-sided model: App Store connects buyers (iPhone users) and sellers (app developers)
2. Built on numerous partnerships with providers on the supply side: Apple has over 20 million developers registered on their platform.[4]
3. Providing access to a massive user base on the demand side: over 1.4 billion active Apple devices, and hundreds of millions who have stored their card details with Apple.

[4] TechCrunch, June 2018. Available at https://perma.cc/R3GF-JCFJ

4. Efficiently matching supply and demand using data analytics: Apple is one of the best at providing relevant apps for user searches. In comparison, there are many eCommerce platforms that return absolute garbage results (irrelevant products) when you search for a product.

“In the same way Spotify
is able to individualise
recommended playlists
for users of their platform,
we need to help our retail
and commercial customers
navigate their financial
contexts with appropriate
financial solutions to
support them
in dealing with their
respective challenges
and opportunities.”

Jacques Celliers, CEO
First National Bank (South Africa)

How a platform approach can help international remittances

As of now, almost all international remittance platforms are closed. This means that as a sender, you have to sign up with a provider if you want to send money with them. This is largely because each provider wants to own the customer—and that's where the battle is currently being fought.

In a world where platforms are open, an aggregator can sit on top of a half dozen providers and serve a customer.

This model exists in many other payment vertices. Here, the aggregator owns the customer and enables the customer to select the best exchange rate served up by a number of providers. There is a clear win for the customer, who gets access to better exchange rates. Whilst the providers lose direct customer influence, they could shift their focus to product innovation (detailed in chapters 9 and 10) to provide additional value and attract and retain customers that way.

In one way, the aggregator model already exists in international remittances. It's one layer up in the value chain, where most money transfer operators connect to B2B providers to create their network of 200+ countries, for example.

The biggest win for money transfer operators will be additional transactions gained through greater digitisation of international remittances by opening their platform, as smaller and more nimble players attract and acquire new customers using community-based approaches.

Going back to the Apple example, they were able to generate over $100 billion in sales by opening their platform.

Applying the Apple example to a large money transfer operator, say Western Union, a platform approach would look something like this:

1. Multi-sided model: connecting smaller MTOs and allowing them to provide remittance-as-a-service (front-end) as well as allowing new providers to offer additional financial products.
2. Built on numerous partnerships with providers on the supply side: for example, Western Union claims to be connected to over two billion bank accounts around the world.
3. Providing access to a mass user base on the demand side: to their 150 million strong customer base who in 2018 completed 800 million transactions.[5]
4. Efficiently matching supply and demand side using data analytics: the secret sauce, here's where the magic happens – figuring out customer needs even before the customer knows what they want.

For senders and recipients, not only do they get access to better exchange rates, they will also benefit from more choice, better user experiences and additional products and services that don't exist today.

[5] Western Union data. Available at https://perma.cc/9QYZ-ZMHJ

Pangea Connect: Remittance-as-a-Service (RaaS)

In June 2019, money transfer operator Pangea expanded its model by opening up their technology to new partners through Pangea Connect, the world's first remittance-as-a-service (RaaS) platform.

Pangea Connect gives brands the ability to offer global money transfer capabilities to their customers. Pangea Connect partners can provide their service directly to existing customers through a fully branded app, or via integration with Pangea Connect's RESTful API. This allows brands outside the US to increase their market share, while also enabling US-based companies to easily offer remittances to their customers in both new and existing markets.

For money transfer operators wanting to expand into the US market, this is a no-brainer especially as Pangea Connect provides regulatory cover in all 50 US states.

InstaReM rebrand to Nium with launch of open payments platform

In October 2019, digital cross-border payments provider InstaReM rebranded to become part of Nium at the launch of its global enterprise payments platform.

Nium provides an open platform that businesses and partners can use to develop their own payment and finance solutions using Nium's Open Money Network. The Nium platform offers open-source software for developers to create new payment capabilities and join its network of financial institutions, fintechs and other companies, supporting collaboration and product development in the cross-border transaction space.

The rebrand has been part of the strategy since its recent $41m funding round, which made it one of the best-funded fintech companies across Southeast Asia, and the company was one of the first organisations to partner with Visa's fintech Fast-track programme in the EU, Australia and the Asia Pacific region.

Prajit Nanu, Co-Founder and CEO of Nium said: "As we look to the future, our strategy is to move beyond merely creating services on our own proprietary platform. We have worked really hard in the last four years to build new capabilities that open a world of possibilities in the global payments universe.

"To express our broader capabilities to the world, and to engage more directly with our existing and future enterprise partners, we have rebranded InstaReM to Nium. We aspire to become enablers; creators of an open platform that businesses and partners use to build a world free of old constraints and restrictions – a true world of Open Money. This is Nium," Nanu said.

Organisations working with Nium will have the opportunity to become a member of The Open Money Network, a digital collective of financial institutions, fintechs, eCommerce platforms, travel companies and online marketplaces.

The platform will allow these organisations to send, spend and receive money, as well as build new products without legacy system constraints.

Businesses can buy Nium's off-the-shelf products, work with Nium to build custom integrations for their enterprise tech stack or use the Nium platform to build products and services that make the cross-border movements of money quicker, more convenient and cost-effective.

Want to launch a virtual bank? Have an existing customer base that wants to send or receive money in a new way? Want to take B2B payments to the next level? Plug into Nium's API network to access:

- SEND (55+ countries via direct ACH coverage, real-time in 23 countries)
- SPEND (card issuance in 32+ countries)
- RECEIVE (30+ countries via direct ACH coverage)

Additionally, Nium has launched a fintech accelerator called BOLT (*www.fintechbolt.com*), a 26-week collaborative program for entrepreneurs and seed-stage start-ups in the Fintech space. BOLT claims to offer the shortest time to market anywhere in the world.

Described on their website as 'a ready financial rails payment platform to plug and play. A first of its kind, independent hub for R&D in the fintech space. No predatory equity-in-lieu. No lien on future profits. Not even your IP. In short, no strings attached.'

InstaReM will remain a digital remittance solution, now powered by the Nium platform.

MTN partners with MFS Africa to launch MTN Homeland

In December 2019, MTN launched its mobile money diaspora service, MTN Homeland.

The service is powered by Johannesburg–based fintech startup MFS Africa, the largest digital payments hub on the continent. It connects over 180 million mobile accounts on the continent. Through a single API, MFS Africa connects mobile accounts, banks, money transfer operators, and merchants to enable real-time, cross-border and cross-network transactions.

MTN is leveraging it’s telecommunication footprint, the largest in Africa, to offer instant, low-cost digital remittances to African diaspora living in Europe.

“We are so proud of the partnership that created MTN Homeland, and may it indeed give the African diaspora a sense of being home, away from home.”—Dare Okoudjou, the Founder and CEO of MFS Africa.

Chinese internet giants

This book would go amiss without mentioning China's meteoric rise in digital payment adoption. It all started around 2013 with red envelopes, a Chinese New Year tradition. This drove the initial adoption, with 88% of WeChat Pay users using red envelopes. In 2015, more than 1 billion red envelopes were sent over WeChat Pay during Chinese New Year. In the following year, the number grew eightfold to over 8 billion red envelopes.

As mobile commerce took off and reshaped lifestyles, super apps[6] Alipay and WeChat Pay conquered mobile payments.

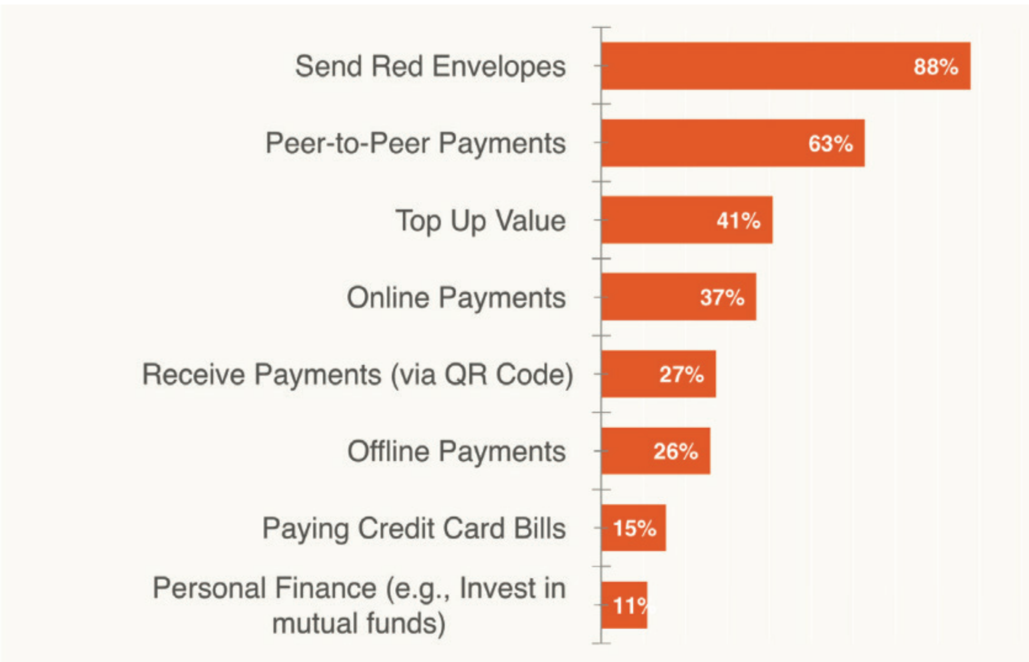

Figure x: WeChat Pay use cases (source Penguine Intelligence)

Where Alipay and WeChat Pay came from

In order to fully appreciate their capabilities, it's important to understand the background. Alipay is part of Ant Financial, which is closely connected to Alibaba, and WeChat is part of Tencent.

[6] For a detailed explanation of super apps, see page 174.

Therefore, the battle between Alipay and WeChat Pay is often regarded as a proxy war between Alibaba and Tencent, the two internet giants in China. In recent years, Alibaba and Tencent have been very active in strategic investments in successful early- to mid-stage startups operating in sectors with potential synergies, for example Mobike/OFO, JingDong and DiDi Chuxing.

Ant Financial has grown into a full-scale financial service company built on big data infrastructure, with Alipay as the front-end, via integrations with a wide spectrum of financial services, such as money market investment (Yu'e Bao which means "leftover treasure"), insurance service (ZhongAn), credit rating (Sesame Credit), personal credit line (Ant Micro Loan), as well as SMB banking (MYbank). However, WeChat Pay took a different approach, offering most of their financial services through other entities, and some through WeBank.

Platforms built on platforms

Platforms built on platforms is a Chinese concept, for example Caifu Hao ("fortune account" in English) a next generation finance platform built on Alipay platform, which allows third-party financial institutions to set up shop inside the app. Another example is Zhao Cai Bao, a B2C financial services platform open to third-party financial institutions that provides regulated products such as property insurance policies, mutual funds, fixed-term deposit products, bonds, and more also on the Alipay platform. Wealth management platform doubles as a liquidity marketplace allowing holders of fixed-income contracts who find themselves in sudden need of liquidity to sell part of their holdings to peers. Take for example a user who holds cash in a 3-year CD, and suddenly needs cash at the end of year two. Instead of breaking their contract with the bank, they can sell the remaining year to a peer on Zhao Cai Bao's platform to another user. At the time of sale, the seller receives cash. Later, when the security matures, the platform automatically splits the bank's payout to the seller and the buyer prorated in terms with their agreement.

This peer-to-peer wealth management platform serves three very important functions.

- First, it provides security holders with liquidity, thereby making investing less daunting for novice investors who worry about future cash flow.
- Second, by automating the payment process, it assures buyers that they will be paid as agreed in the sale's terms.
- Third, it lowers risks for banks who are selling these products down-market from their usual high-worth clientele.

Before the existence of the peer-to-peer platform, a client who needed liquidity would withdraw their funds early at a penalty. Doing so not only upsets customers who resent the penalty, but also draws capital from the bank earlier than anticipated, which creates risk.

No doubt, there is a lot to learn from China and this is just a quick peek. However, one company can't do everything – their platform mentality is to help their partners do things better. Advice the rest of the world would do well to heed as too many western companies fail to collaborate.

How do these platforms make money?

Primarily via net interest and advertising. The Tianhong Yu'e Bao fund (which is different from the app's overall Yu'e Bao wealth management platform which hosts 27 other funds) has $157 billion in assets under management as of December 2019, third largest in the world, compared with around $268 billion in March 2018 when it was the largest global fund (the decrease largely attributed to tighter regulation and growing competition from higher-yielding wealth management products as Chinese authorities wrestles with the country's fast-growing investment industry). More than a third of China is invested in Yu'e Bao with 588 million users of Alipay having parked cash in the fund using it like a checking account. Users are able to pay for anything, from haircuts to hot pot dinners, directly out of their high-yielding investment holdings, seamlessly and easily.

Coming to money transfer

Ant Financial tried to buy MoneyGram for $880 million, but was blocked by the US government. In 2019, several leading money transfer operators integrated into Alipay, allowing Chinese migrants to send money home to Alipay's 1.2 billion users. It is as simple as adding in the recipient's name and Alipay ID and the money is transferred instantly into the bank account linked to the recipient's Alipay profile.

IndiaStack: national identity, bank accounts and mobile adoption

When compared to China, India has taken an opposite apporach with tight regulation from the start and it has taken the better part of the last decade to reach scale. Going digital has been a mega trend in the country and has been driven by five factors:

1. **Biometric national identity programme:** Aadhaar was the fastest to reach the one billion user mark, achieving it in five years, beating Android who took 5 and a half years to hit the same milestone. Uniquely identifying people has great benefits for the entire ecosystem and has really helped payments and banking. It's also simplified the customer due diligence or KYC (know your customer) process—instead of collecting and verifying paper documents, this can now be done electronically and in real-time.

2. **Clear regulations and guidelines:** the Reserve Bank of India, introduced Payment Banks and Small Financial institutions in 2016.

3. **The adoption of mobile phones:** India went from 525 million subscribers in 2009 to 1,154 million by 2019.[6] Coupled with enabling regulation, mobile operators were allowed to provide bank accounts, further increasing the reach.

4. **Payment infrastructure:** an Immediate Payment System (IMPS) that provides instant fund transfer by connecting the majority of bank accounts. Layered on top of that is a Unified Payment Interface (UPI) that provides access with just one integration. UPI has democratised access to the payments infrastructure and has seen meteoric adoption since its debut in 2016. The next step was to link identity and payments using the Aadhaar payment bridge system, a unique payment systems implemented by NPCI.[7]

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[6] TRAI Telecom subscription data

[7] National Payments Corporation of India, product overview. Available at https://perma.cc/ERB2-S4AS

It uses Aadhaar number as a central key for electronically channelising the government benefits and subsidies in the Aadhaar enabled bank accounts of the intended beneficiaries.

5. **Government schemes and a strong willingness to drive the digital agenda:** from 2014, 389 million new bank accounts were opened under a government scheme called Pradhan Mantri Jan Dhan Yojana.[8] In addition existing government schemes (subsidies) were digitised and several new ones were also introduced.

Overall, huge gains have been made as all government subsidies are paid digitally into bank accounts. Additionally for many Indian migrant workers, sending remittances involves the anxiety-inducing experience of giving cash to couriers or postal services and hoping for the best. India's emerging faster payment systems, including IMPS and UPI, are putting those fears to rest.

From an international remittance point of view, more funds sent to India are terminating digitally than ever before. However, we mustn't forget that there is still an important role that cash plays.

Big tech and payments in India

In October 2019, digital payments in India surpassed a billion transactions per month, the vast majority of which are micro payments. A milestone that affirms the tremendous growth of services offered by some of the world's biggest companies including US giants from Walmart to Amazon and Google on the one hand and Chinese giants Alibaba (Ant financial) and Tencent on the other, all battling for supremacy.

[8] A financial inclusion program of the Government of India which is applicable to 10 to 65 years age group, that aims to expand and make affordable access to financial services such as bank accounts, remittances, credit, insurance and pensions. Available at https://perma.cc/Q9WJ-DKSL

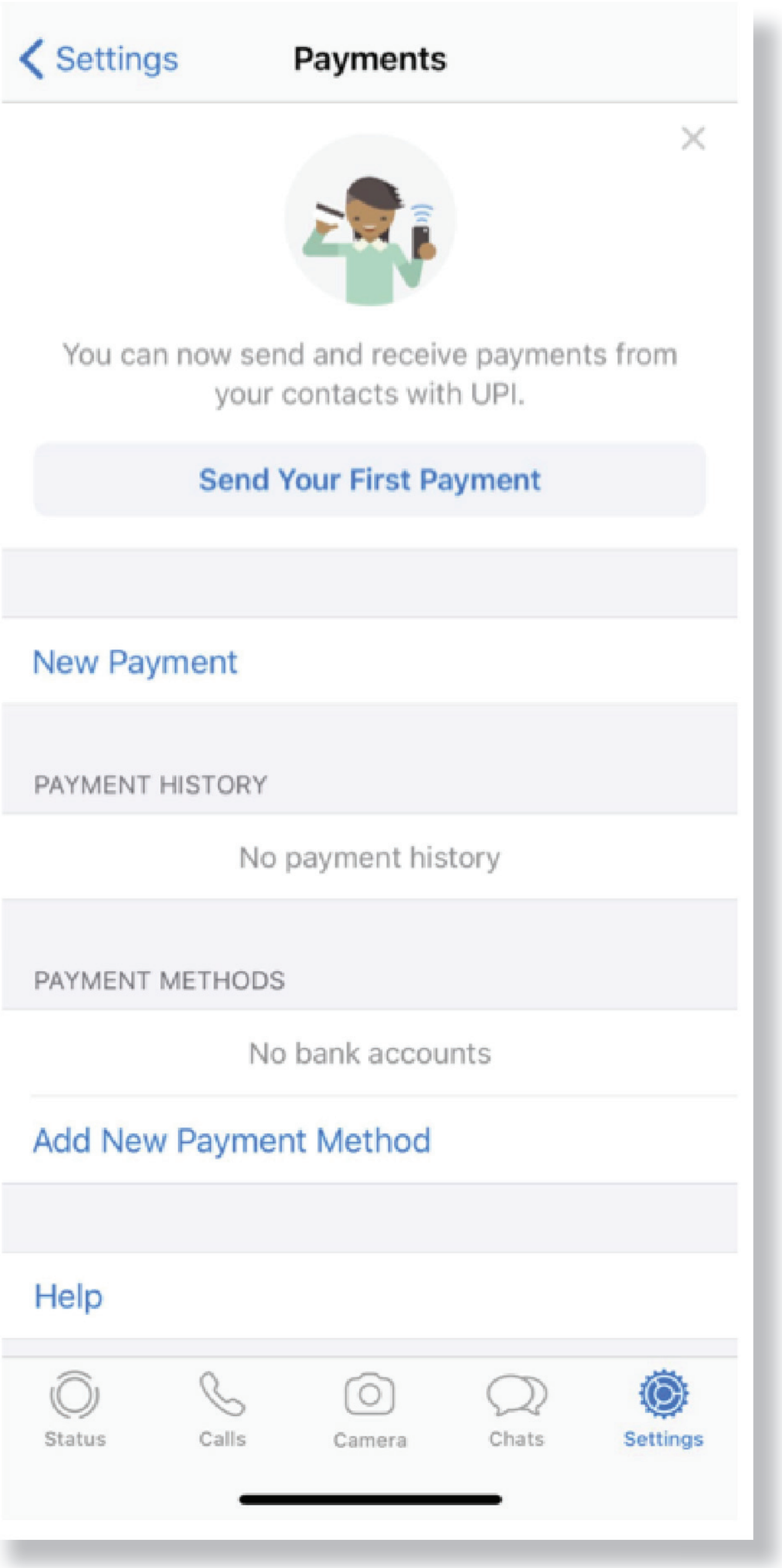

Figure 8.2: The WhatsApp of money is not a pipe dream.

Indian digital payments took off when the government pushed demonetisation in 2016, invalidating most of the country's high-value currency notes in a move to curb corruption and push Indians away from cash. Adoption of UPI has now surpassed 100 million users and accounts for over half of all digital payments in India,[9] three-and-a-half years after its launch, thanks to free transaction (capped at 20 transactions per month), booming smartphone use and mobile data rates among the lowest in the world.

Facebook's WhatsApp is seeking final approval for the full-fledged countrywide launch of its payments service, which has been in a long-drawn pilot phase with just one million users.

In February 2020, WhatsApp received approval to extend their pilot to ten million users. Experts predict that the entry of WhatsApp into the arena will mark another inflection point because of an estimated user base of more than 400 million.

The recently announced Facebook-Reliance Jio partnership is another interesting development and has Amazon looking at taking a stake in Airtel, while Google and Vodafone are in talks too. How this all shapes up will be interesting to watch.

So what's all this got to do with international remittances?

It's giving us a glimpse into the future. For digital international remittances to grow, the receiving country needs strong and thriving domestic remittance payment rails. International remittances then become an extension of those rails. Whilst we've already seen this play out in East Africa (digital termination of funds), India highlights the threat to money transfer operators in a different way. With Global players building large customer bases in India, it won't be long before they all start to turn on international remittances themselves.

[9] Quartz India, November 2019. Available at https://perma.cc/SUK3-5WH7

Once the big platforms (e.g. Facebook/WhatsApp etc) get in, they offer a set of services that a money transfer operator cannot supply. That allows them to easily squeeze all the small players out of the market even if their pricing is not competitive because of the overall bundle of services they provide.

Case study: Remittance-as-a-Service— Nium helped India's largest eCommerce payment app launch a cross-border product

Nium provides cross-border payments technology for a leading eCommerce payment platform in India. The payment app has over 20 million active users per month, and before integrating with Nium, only offered domestic payments. Nium worked with the client's product team to add cross-border transfers to their existing app. The product took less than three months to launch using Nium's white label consumer interface and flexible API set. As a result, Nium's client added significant new value for their customers and gained a new source of transaction revenues.

Sending money out of India is highly regulated and is more challenging than sending cross-border payments in other countries. As a result of these complexities, there were few options outside of traditional banking channels to send money before this product launched. Now consumers can make payments in seconds from their mobile devices. They also enjoy faster transfer times, lower costs and more transparency throughout the transfer process.

Summary

Platforms have disrupted and transformed virtually every industry. Similar to 'banking as a service', 'remittance-as-a-service' will remove the hassle of FX and liquidity management, allowing money transfer operators to focus on serving their customers.

- As of now, almost all international remittance platforms are closed. As a sender, you have to sign up with a provider to send money with them.
- With platforms and aggregators, senders and recipients get access to better exchange rates, benefit from more choice, better user experiences and additional products and services that don't exist today.
- There is a lot to learn from China's meteoric rise in digital payment adoption and their concept of building platforms upon platforms.
- India has been on a massive digital drive over the last decade and more funds sent to India are terminating digitally than ever before. For digital international remittances to grow, the receiving country needs strong and thriving domestic remittance payment rails, which India has. Further, with global players building large customer bases in the country, it won't be long before they threaten money transfer operators.

Chapter 9

Additional product offerings

Meet Asha. She lives on the outskirts of Chennai, India with her husband and three children. Her eldest son Ravi is working in Italy, and he sends her $250 every month.

- At times she has unpredictable expenditures which creates a cash flow problem for her.
- She could ask her son, Ravi, to send more money or she could get informal credit – though both options are expensive.

Figure 9.1: Income and Expenditures

“Affordable and convenient credit is the next killer app.”

Nandan Nilekani, Co-founder and non-executive Chairman of Infosys

Typically, loans are given against assets. However, the majority of low-income people don't have significant assets. Once you have their payment history, you can give loans against their cash flow.

What if the money transfer operator Ravi uses to send his mother money every month offered her an emergency credit facility?

Looking at both Ravi and Asha's lives, what else could money transfer operators do to enrich their lives? In this chapter, we'll take a look at all the products we could offer both Asha and her son Ravi, including:

- Credit – emergency and long-term loans (including mortgages)
- Savings and investments
- Insurance – health, accidental death, funeral and travel

Emergency and longer-term loans

Formal credit services, such as the ones provided by microfinance institutions (MFIs) and banks, have made strong inroads in addressing the needs of low-income individuals. However, often due to physical constraints and high operating costs, these MFIs and banks can have limited reach and flexibility. Around the world, many developing-market consumers remain severely limited in their access to formal financial services, particularly unsecured credit. In India alone, in 2014, more than 400 million people borrowed money, but fewer than one in seven were approved for a formal loan.[1] Indeed, this experience of being "invisible" to formal lenders is a reality for billions of "thin file" or "no file" consumers living in nearly all of today's developing markets.

[1] Based on Global Findex survey data, 2011 and 2014. World Bank.

As a result, most recipients find it challenging to access formal credit. The traditional way formal financial institutions provide credit to individuals is based on a secure job, requiring job letter, payslips, etc. On the other hand, informal credit tends to be expensive, sometimes cripplingly so.

For most people their expenses are not greater than their income and often it is simply a case of timing. Their cash flows are not in sync. This is a great opportunity for money transfer operators to balance that out with the appropriate amount of responsible lending, and make a huge difference in people's lives.

What are thin-file customers?

A thin file is a financial designation of having a limited credit history. Having a thin file can make it difficult to obtain credit or get approved for a loan, but some lenders will consider other payment information not included in traditional credit reports. In other words, a thin credit file is one that lacks information. This happens when someone has not used credit products in the past. It means there is not enough information for a potential lender to confidently assess the applicant's ability to repay any loans. Lenders like to see a track record of financial responsibility.

The impact of not having access to formal credit

Recipients often need to access credit due to spikes in their expenses, either expected or unexpected. Not having access to formal credit means that they have to resort to the next best option, which is often a money lender or loan shark. Informal credit is extremely expensive and punitive.

Responsible lending

Responsible lending is to ensure that the credit contract or lease is 'not unsuitable' for the consumer. Specifically, where the consumer is unable to meet the repayments or can only comply with substantial hardship and or the contract does not meet the consumer's requirements and objectives.

Responsible lending also requires that credit assistance is not provided to a consumer by:

- suggesting they remain in an unsuitable credit contract
- assisting them to enter into, or increase the limit on an unsuitable credit contract
- suggest the consumer apply for, or remain in an unsuitable consumer lease
- assisting the consumer to enter into a consumer lease that will be unsuitable for them.

Why money transfer is the answer

Most recipients receive money on a monthly basis, and this is effectively a proxy for a salary. When received digitally, the data can be used to provide loans.[2] Whilst money transfer operators are not in the business of providing credit, which is a specialist business in itself, they can partner with credit providers—such as credit unions, non-banking financial corporations and others—to provide their customers with credit. For lenders, partnering with money transfer operators is more sustainable than chasing borrowers for repayments.

[2] Flow based lending This is a form of financing in which a loan is backed by an individual's existing and expected cash flow. This loan is very different from asset-backed loans where the collateral of the loan is based on an individual's assets.

Two types of loans money transfer operators can enable

The first is an emergency loan for 10-20% of their average monthly remittance. This could cover an unexpected expense that needs urgent attention. Repayment can be taken automatically from the next remittance the recipient receives.

The second is a longer-term loan for 100-150% of their average monthly remittance. This could be for something like school fees. Repayment can be taken automatically over 12 months from subsequent remittances the recipient receives.

Many customers are receiving access to formal credit for the first time—their motivation to repay is driven by not wanting to be blacklisted and lose access. Rewarding good repayment behaviour by then reducing the interest rate could help to further fuel the adoption of these products.

Credit scoring: How money transfer operators can turn their data into credit insights

Money transfer operators have the opportunity to use data from a variety of sources to develop credit-scoring models. For example, remittance patterns—the frequency and amount of remittance received—gives indications of a customer's financial stability. A receiver who receives one large amount at the same time each month could indicate a strong dependence on a family member with a salaried job, whereas a receiver who receives small amounts less frequently could indicate that remittances are being used to supplement local income.

Micro-credit can encourage healthy borrowing behaviours amongst low-income recipients as long as providers are responsible and don't create a "dead-end" borrowing cycle along with non-transparent fees and terms.

Case study: UAE to Nepal, enabling credit (Al Fardan Exchange in UAE and Laxmi Bank in Nepal)

In September 2019, New Street Technologies launched FAR (Finance Against Remittances) connecting money transfer providers in countries where migrant workers are employed, with banks in their home countries.

FAR runs on MiFiX, which already has thousands of customers and millions of dollars of financial services products delivered on behalf of partner Banks, NBFCs, P2P lending platforms, Business Correspondents, Insurance Companies and other parties. By enabling MTOs in the host country as partners in the MiFiX ecosystem the platform provides reliable KYC and credit related information on remitters so that lenders can provide credit to the dependents of the migrants in the home country. Stakeholders can now receive information about migrants, who regularly remit money, to build a credit profile, complete with KYC, proof of employment, and a track record of regular payments. They can then use this profile to provide credit and other financial services to workers' families, supported by seamless remittance facilities that assure them of timely repayments.

- Migrant workers can get access to financial services in their home countries, and their families can access savings products, investments or cheaper credit through formal channels.
- MTOs get assured flows of remittances throughout the loan tenor implying a lower cost of acquiring/retain customers
- FAR on MIFIX provides regulators the assurance that there is no additional risk of illegitimate transactions creeping into formal cross-border funds transfer channels. At the same time, legitimate transactions that were routed through informal channels can be mainstreamed into formal channels.

Stilt and Remitly partner to support millions of migrants working to secure a better financial future

Stilt, a mission-driven company focused on democratising access to credit for migrants and international students, today announced its partnership with Remitly, the largest independent digital remittance company in North America. Remitly's customers will now have access to credit through Stilt's unique, migrant-focused loan products. Customers can borrow up to $35,000 with rates starting at 7.99 percent for 6 to 36 months. Remitly customers will also enjoy leading exchange rates on international transfers sent by Stilt borrowers, saving them money in exchange rates and fees.

This loan is perfect for migrants in the US who are on certain types of visas. Stilt uses different criteria to determine eligibility and rates: education, income, and financial habits and doesn't need a social security number, credit score or a co-signer. Therefore the loan is based on the applicant and their merit, not their credit history.

Whilst a money transfer operator can provide credit in cash and without a bank account (e.g. Creditcaretech providing credit in partnership with money transfer operators in the Philippines, Malaysia and Vietnam), it isn't possible to provide a savings facility in cash. This provides money transfer operators a great opportunity to tie-up with financial institutions in receiving countries to help recipients open bank accounts by acting as a service provider and helping transition cash-based remittances to digital transfers.

One example is money transfer operator UnityLink who has partnered with GCB Bank, Ecobank and ADB Bank to provide their customers (largely Africans living in the diaspora) the ability to open a joint or personal savings account in Ghana.

“The future of financial services will be influenced by the emergence of embedded finance.

Finance will come to resemble other industries of the internet era — more interconnected and more customisable, powered by components that can be inserted into individual businesses in different sectors. And this changes the way financial services make their way to the end user.”

David Galbraith, Anthemis

Auto-savings for a rainy day or for set goals

It's easy to think that poor people don't save money and are not financially savvy.

In the book, *Portfolios of the Poor: How the World's Poor Live on $2 a Day,* the authors highlight the sophistication of the poor, who on average have nine financial instruments. In fact, most poor households do not live hand to mouth, spending what they earn in a desperate bid to keep afloat. Instead, they employ financial tools, many linked to informal networks and family ties.

They push money into savings for reserves, squeeze money out of creditors whenever possible, run sophisticated savings clubs, and use microfinancing wherever available. As a result they save money, lend money to those who are poorer than they are and are dependent on them.

For many people in developing countries, access to savings at formal financial institutions is very limited, resulting in low-income individuals having to find other ways to save. Therefore, savings propositions can be attractive to remittance recipients because their existing savings options tend to be risky.

One study, for example, found that among Ugandans who saved in-kind (by investing in animals, commodities or other goods), 75% had lost some of their savings in the previous year.[3]

Moreover, low-income individuals can find it hard to save cash, in part because the money is always readily accessible, meaning they have to continually exercise self-control. By comparison, digital savings can be a safe and convenient place for people to store money.

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[3] The Relative Risks of Informal Savings (2001), by Wright and Mutesasira

The power of default assignment on savings behaviours

A huge amount of research undertaken over the last 20 years, particularly as it relates to retirement savings, [4] proves the impact of default assignment on savings behaviours.

A recent field experiment was conducted in Afghanistan designed to identify the reasons why defaults affect behaviour.[5]

The experience yielded three main findings:

1. First, default assignments have large and significant impacts on employee participation and on savings—this impact is of comparable magnitude to what is reported in the literature on defaults in developed countries.
2. Second, the study "priced" the default relative to employer matching contributions and estimated the elasticity of participation with respect to the match rate. The researchers found that default assignment increased participation by roughly the same amount as a 50 percent match on employee contributions.
3. Third, the study found that defaults affect employee attitudes and interest in saving, even long after the experiment concludes. Most notably, after removal of all financial incentives to contribute at the end of a six-month trial, employees defaulted into savings reported significantly higher levels of financial security, and two years later, their savings balances remained larger than those randomly defaulted out of savings during the trial.

Therefore, we can conclude that saving by default is more powerful than actively making a choice to save on a regular basis as procrastination is a key driver.

[4] Lead by Shlomo Benartzi and Richard Thaler

[5] Why Do Defaults Affect Behavior? Experimental Evidence from Afghanistan (2018), by Joshua Blumenstock, Michael Callen, and Tarek Ghani

Money transfer and auto-savings for a rainy day or for set goals

When remittances are sent digitally, recipients can be offered savings products, in partnership with a licensed deposit taking institution (DTI). Once opted-in to make a contribution from every remittance, the set amount is automatically transferred to a savings account without any action from the recipient. These savings can be earmarked for a rainy day or for a set goal.

Default setting together with default increases over time are very powerful enhancers of savings and provides money transfer operators with an important revenue stream, net interest on total customer funds.

Generally, it's not economically viable for DTIs to collect a large number of small deposits, or for customers to walk to a bank branch to make small deposits on a regular basis. Thus, by reducing the cost of deposit-taking for banks, money transfer operators can mobilise large amounts of money that are not in the formal financial system. As a result, these savings products, which often act as enablers for other credit products, can provide banks in developing countries with additional business opportunities.

Default savings contributions from remittances need to be passive to help remove primary obstacles to saving. Additionally, providers can proactively nudge behaviour to help their recipients accumulate savings.

Similarly, recipients can be offered products that invest tiny sums (less than 1% - which can come from reduction in fees) for the long term. Unlike the savings pot above, these funds are not accessible. Investing $2 per month for 20 years is $480 of principal, which when compounded over that period, could become several thousand dollars— a massive amount for a $2 contribution that could come from current fees.

In Afghanistan, Vodafone launched M-Pasandaz (which means "savings" in Dari), an automatic savings product. Products like M-Pasandaz can be adapted to remittances and provide new options for mobilizing savings. As the share of digital remittances increases, this can make a huge impact to individuals and families.

For money transfer operators this is one application that can be built inexpensively and should be high up your roadmap. Remember—net interest.

Case study: linking evidence to savings products (Digicel and national bank of Samoa)

Accessibility and the belief by the population that they cannot afford to save, has been two of Samoa's biggest impediments to financial inclusion in Samoa.

With only 39% of the population having any form of access to a financial service, a new product could be key to reducing Samoa's unbanked populations, especially as more than half of Samoan's receive such remittances on a regular basis.

Ezibank, is the National Bank of Samoa's (NBS) newest product on the market that connects Digicel's mobile money platform to NBS customers bank account. EziBank combines NBS basic banking services with other payment services available through Digicel Mobile Money.

The product allows customers to check their bank account balance, transfer the money they receive from family and friends via their Digicel mobile money account and make deposits and withdrawals between their Digicel mobile money account and NBS savings account. This can be done on all types of mobile phones using a USSD menu.

Insurance to protect recipients

Insurance is defined as an arrangement by which a company or the state) undertakes to provide a guarantee of compensation for specified loss, damage, illness, or death in return for payment of a specified premium.

Much of the world takes insurance for granted, but traditional insurance does not cater to those with low incomes in either developed or developing nations. This is primarily because the cost of selling, underwriting, collecting premium payments and administering a claim does not decrease in proportion to the value of the policy. As a result, administering low-value or micro insurance policies is uneconomical for many traditional providers, whose cost structures are fixed and geared towards high-value policies. This creates an opportunity to leverage remittances to provide more cost-effective insurance.

The power of micro insurance

Micro insurance can be very appealing to low-income people, who are vulnerable to financial shocks that can have devastating long-term consequences. For example, in India, one in four families who experience a medical emergency drop below the poverty line.[6] Insurance should be designed to insulate consumers against these financial shocks.

Money transfer and insurance

Money transfer operators can offer insurance products for free as a customer retention tool. For example, after five transfers, a micro insurance policy is issued which requires one transfer per

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[6] Health insurance: Is Indian rural population aware? (2013), by Harshal T Pandve and Chandrakant V Parulekar. Available at: https://perma.cc/X778-AUL7

month to keep the policy active. The value of the policy could also increase every month as the customer continues to use the service. If there is a gap, the policy gets reset and starts again after five transfers.

Money transfer operators can also offer paid insurance products, such as life, health and funeral insurance, that are auto-debited from each remittance a receiver receives.

Health insurance for recipients can complement international remittance very nicely, as both the sender and receiver need not worry about emergency medical expenses.

The lack of insurance is one of the biggest reasons people return to poverty.

Why migrants need and want insurance

There are a bunch of things that migrant workers are worried about. They're worried about events that could happen to them which stop them being able to work. For example, what happens if I have an accident on my way to work?

Meet Harriette, a Filipino maid in Singapore who is worried about having an accident on her moped or in the back of a Grab or something like that. Because if she can't work she is going to get sent home very, very quickly, and there's going to be huge cost implications of that, huge social impact of that on her and her family. Similarly, if she gets sick then she will be given some time, but not long and if she can't work then she is in deep trouble and will get sent home.

So migrants are worried about the risks that will stop them working. They're also worried about being looked to as the main provider. Meet Kwame, a Ghanaian taxi driver in Washington, DC earning $20,000 a year, which is a huge amount of money compared to what he was earning back home. But no one back home knows the cost of living in Washington DC. So, $20,000 sounds like a huge amount of money, but it really isn't in terms of net disposable income. And so when his mom dies, and we know that when your mom dies in Ghana it's $10,000 cost for the funeral, most people are going to look to Kwami to provide the majority. Finding $10,000 when you're a taxi driver in Washington, DC is a stretch.

So migrants are worried about that too. The other thing that migrants do is they use their remittance as a way of saving. So Harriette, working in Singapore is sending money home to build a house, so that 20 years from now, she can go home and live with her kids and not have to work. She's worried about a typhoon coming along and ripping the roof off or knocking it down, or a mudslide knocking it over. And the implication of that is that she has to start again and do another 20 years of servitude in Singapore.

And the final one, what happens if I die? How would the people back home navigate the bureaucracy? They don't even speak English, they don't have good access to the internet, they're not educated. How will they get me home? How will they get me in a box, through the airport, on a plane, back home, loaded out at the other end, so I can be buried and that I can be put to rest in my homeland?

These are the risks that migrants are worried about. Yet, how many money transfer operators are aware, surely if they were they would think about these risks and say wow, that's a fantastic motivator for people to get out of bed in the morning and want to buy insurance, because these are all insurable risks. When you combine that with the fact that one of the big challenges for remittance companies is brand loyalty it is an obvious no-brainer.

However, those who have looked into offering insurance, would appreciate the regulatory complexity and the need to convince their compliance team that this is a good idea. It would be a leap of faith because they'd have to believe that it would actually move the needle on loyalty. It's going to cost them something and they need to justify it, but they have to get brave if they want to see a breakthrough, rather than just keep doing a me too service.

Here are a few examples of money transfer operators providing insurance:

AkwantuPa Funeral Policy

The AkwantuPa Policy is an innovative ingenious product from Enterprise Life designed for Ghanaians living abroad. It eases the burden and stress involved with funeral planning and financing when living abroad. AkwantuPa has five packages to choose from and it is designed to handle financial responsibilities and reduce stress for the next of kin. AkwantuPa pays out a lump sum cash benefit upon the demise of family members who live in Ghana, to finance their burial rites. The policy also provides an optional repatriation cover for policyholders and their family members who live abroad. The repatriation benefit pays the costs incurred in transporting the mortal remains of policyholders or their family members abroad, back to Ghana for burial upon their demise.

HelloPaisa MicroEnsure pioneering micro insurance

MicroEnsure, a specialist in the provision of insurance to the mass market with over 40 million customers (85% of whom never had insurance product before) in 20 countries, created new models for remittance channels which laid the foundations for Merchantrade in Malaysia (see case study below) and HelloPaisa in UAE, providing AXA's accident and disability policy – for free to UAE residents remitting money to their home countries.

Case study: AXA offers migrant worker insurance solutions in Malaysia

In 2018, AXA Affin General Insurance Bhd (AAGI) partnered with money transfer operator Merchantrade to offer an insurance product aimed at migrant workers and their families.

Merchantrade Insure is a protection product that pays claims directly to the insured's beneficiaries through money remittance. The first Personal Accident Insurance in Malaysia with direct remittance payouts to the beneficiaries to allow blue-collared workers to purchase insurance on their own accord with a sum insured of MYR 9,000 for as low as MYR 5/month.

Migrant workers are an underserved group, and the partnership seeks to reach this market by providing affordable protection solutions in case of accidental death or permanent disablement. In case of hospitalisation, Merchantrade Insure also provides a daily income benefit.

The product, which is underwritten by AAGI and distributed exclusively by Merchandtrade through its branches, has the following benefits:

- MYR9,000 (US$2,200) payout in case of accidental death or total permanent disability
- Hospitalisation benefit from MYR50 to MYR1,000 per day
- Various benefits such as funeral allowance, ambulance fees, and reimbursement for wheelchair or prosthetics for extended plans
- Customisable coverage periods – one, three, six, or 12 months

According to the World Bank Group, migrants make up 15% of Malaysia's labour force, making the country host to the fourth-largest number of migrant workers in the East Asia-Pacific region.

Financial management

We've covered credit, savings and insurance - the three buckets of financial services. These can be tied together with financial management. From micro activities such as budgeting to macro activities such as financial planning, money transfer operators are well placed to provide a solution to meet migrants specific needs.

Other products or services

What else can a money transfer operator offer their customers?

Here are a few more ideas:

- Migrants travel back home - perhaps offering them ways to buy cheap plane tickets? One way to do that would be to provide credit with repayment in equal monthly instalments.
- Travel insurance: several banks bundle travel insurance with their premium accounts. Perhaps money transfer operators can take a leaf out of their playbook.
- Access to local media - perhaps bundling a subscription to strengthen retention?

Exercise: list all the things migrants might need or want and put your thinking hat on. Speak to your customers as they often have the best insights.

Remitly acquires small Seattle startup that helps migrants access financial services

In May 2019, Seattle-based mobile remittance company Remitly acquired Symphoni, a small Seattle startup building software that helps migrant and underserved small business owners access credit.

Remitly describes itself as the largest independent mobile remittance company in North America. Remitly said it was drawn to Symphoni in part because of an aligned mission to navigate the highly-regulated financial services industry.

Symphoni, which was bootstrapped, will discontinue its current offerings as a result of the acquisition. Symphoni's three employees — co-founders Bayo Olatunji, Amanda Shen, and Marvin Cheng — will join Remitly's New Initiatives team.

"Our customers are ambitious, hard-working, and financially responsible — you'd think traditional financial service companies would be fighting to earn their business," Shivaas Gulati, Remitly co-founder who leads engineering for New Initiatives, said in a statement. "We're earning their business in remittances today, and with the acquisition of the Symphoni team, we are going to be much faster and better able to meet their other financial needs tomorrow."

[7] An act or instance of buying out a company primarily for the skills and expertise of its staff, rather than for the products or services it supplies.

Build, buy or partner?

The build, buy or partner decision is often an art more than a science. However, you can apply some logic to the equation by looking at four key areas to help you decide where you stand. When making this decision, consider the following:

1. Estimate the cost to build: understand the true costs of building new products, including implementation, maintenance costs and most importantly time to market.
2. Figure the cost to buy: have preliminary discussions with potential companies you could buy who have built what you need.
3. Understand the risks inherent in partnering, placing your data in someone else's control, etc.
4. Consider putting your development resources to use in building what truly differentiates your business.

No matter what you choose in the end, how you implement it will decide how successful it is. Choose wisely, execute with excellence, and don't lose sight of your mission.

Whilst Remitly's acquisition of the Symphoni team looks more like an acquihire,[6] some of you could buy companies offering financial services and others can provide additional products via partnerships.

Summary

Money transfer operators have the opportunity to partner with other financial companies to offer additional digital products to make a huge difference in their customers' lives, including credit, savings and insurance products.

- Most recipients receive money on a monthly basis, and this is effectively a proxy for a salary. When received digitally, the data can be used to provide loans, including emergency or longer-term loans.
- Digital savings can be a safe and convenient place for people to store money. Recipients can be offered savings products, in partnership with a licensed deposit taking institution. Once opted in to make a contribution from every remittance, the set amount is automatically transferred to a savings account.
- Money transfer operators can also offer insurance products for free as a customer retention tool. For example, after five transfers, a micro insurance policy is issued which requires one transfer per month to keep the policy active. The value of the policy could also increase every month as the customer continues to use the service.

Chapter 10

Neobank for migrants and automating money

Venture capitalists are pouring money into start-ups that are offering basic banking services—known as neobanks or challenger banks.

Lately, neobanking has become a buzzword in the fintech community. The term has gained momentum since it's been in the news and media spotlight. On a global level, neobanks are taking over the fintech industry by storm, with a new player in the market every day whose primary intention is to simplify financial services to a greater extent.

What is a Neobank?

A neobank is a digital bank without any branches. Rather than being physically present at a specific location, neobanking is entirely online and is usually only accessed by a mobile app. Neobanks offer a personalized and more user-friendly experience compared to many traditional banks. This way, neobanks can both challenge and renew the financial offers that many of the major banks currently have.

Neobanks are fintech firms that provide digital and mobile-first financial solutions payments, money transfers, money lending, and more. Although many of the financial services are the same as those of a regular bank, the user experience and features are completely different. Many consider this one of the many benefits of a neobank. They compete with traditional banks because of their lower costs, advanced features, user-friendly interfaces and tailored services.

Most neobanks don't have a bank license of their own but count on bank partners to provide bank-licensed services.

As the financial landscape is shifting towards customer experience and satisfaction, a gap has developed from what the traditional banks offer to what customers expect.

And neobanks are making an attempt to fill that gap.

Most traditional banks are bogged down by their legacy-based infrastructure. So, they crumple, especially when it comes to aiding SMEs with financial services like providing a payment gateway, invoicing software, multiple views of cash management, among others.

This disparity, along with the explosion of mobile technology, only makes sense that banking services can combine with other financial services.

Neobanks are ever-evolving, and as the tech gets smarter, existing neobanks will venture out into new product lines, become more automated, and look to become chartered banking institutions.

What are the advantages of neobanking?

Since neobanks are completely digital, they open up a wide window of advantages to a customer. Here are some key points that may interest customers into moving towards a neobank:

- Hassle-free account creation: the process is smooth and simple, you do it directly from your phone and it only take a few minutes
- Seamless international payments: you can often use your card abroad without any additional charges and with current exchange rates
- User-friendly interface: responsive and well-designed app that is easy to use
- Smart reporting: you get an overview of your expenses and can easily manage them in the app
- Direct in-app support: a chat feature is often offered, where you can get help directly in the app
- Updated balance: you always have an up-to-date balance on your account, and all transactions and payments appear directly in the app. You may also receive notifications that you can adjust to your specific needs
- Saving goals: that help you save money to a specific goal.
- Financial services marketplace: through partnerships, offer you a wide range of financial services from travel insurance to attractive savings products.

While neobanks don’t have the money or customer base to overthrow traditional banks overnight, they can launch features and develop partnerships that people want much faster.

This mix of strengths and weaknesses is creating an interesting knowledge transfer.

Neobank for migrants

Most migrants find it difficult to open a traditional bank account when they arrive in a new country. Having just gotten there, they don't have all the documentation required to open an account (e.g. proof of residence). However it is also difficult to rent accommodation without a bank account, making for a chicken-and-egg problem. For a money transfer operator, it makes sense to provide migrants with a bank account as it would alleviate some of their difficulties and create long-term stickiness, so long as the money transfer operator's rates are competitive.

Whilst starting a neobank might feel daunting for a money transfer operator, several startups provide white-label solutions. A Bank in a box, so to speak.

Money remittance business transforms to a neobank

In South Africa, Sasfin, a small specialist bank that predominantly serves business owners, entered the consumer banking segment when it partnered with Hello Group to transform Hello Paisa from a money remittance business into a bank.

"In Hello Group, we have found the company that is best placed to serve the needs of the unbanked," explains Michael Sassoon, Sasfin's CEO. Founded about 13 years ago, the Hello Group has built itself up into a major player in the telecoms and financial services market by serving mainly migrant workers looking for an affordable way to communicate and do cross-border money transfers. It has expanded across emerging markets in Africa and Asia and now employs more than 1,000 people—up from 300 three years ago. It was the first company in South Africa to receive an independent money transfer operator licence from the Reserve Bank. It now has big plans to expand its financial services offerings in South Africa.

Supported by Sasfin's banking platforms and infrastructure, Hello Paisa's digital banking offering comprises an adaptable ecosystem of services, including an intuitive mobile app, mobile sim card, bank account and a Visa debit card that operates at any ATM or point-of-sale device.

TransferWise doesn't call itself a neobank, or at least not yet. However, they are effectively one, given they provide their users with multi-currency accounts that can hold more than 50 currencies at once via their borderless account. They target travellers, expats and freelancers, allowing them to spend in any currency, receive money for free and send money around the world with their own foreign currency account. Further, users are provided with their own debit Mastercard, to spend in the local currency across the globe.

A neobank for Africa

Eversend is a neobank for Africans anywhere in the world. For Africans and Africans in the diaspora who experience inconvenient and expensive financial services and hidden fees, Eversend is a one-stop financial services hub allowing them to exchange, save, manage and send money at the best possible rates, both online and offline.

"Let me tell you what we're not. We are not just a money transfer company. I like to refer to us as the financial services marketplace or octopus. Or the Amazon of financial services. We're an app where you can easily go get something to make finance work for you," says Ugandan Founder and CEO, Stone Atwine.

Beyond sending money across borders securely, cheaply and immediately, Eversend makes it possible for customers to be able to save, buy insurance, pay bills, get credit—all easily accessible from their mobile phone.

Eversend offers intra-African cross-border money transfers, transfers from Africa to the rest of the world, multi-currency wallets, currency exchange, virtual debit cards, insurance, bill payments, merchant payments, savings and personal loans.

Launched in 2019 having raised only $200k,[1] Eversend is the kind of start-up I talked about earlier who can really cause disruption.

[1] Crunchbase


12:30
CARD
BALANCE
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HELP
TODAY
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Pending
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Payment
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Amazon Marke
YESTERDAY
Costco Gas
DEC 18
Joy Bento
Debit
HOME
Passbook
by Remitly
DEBIT
VISA
JOEL
MAGPANTAY

**Introducing Passbook by Remitly,
a neobank aimed at migrants**

Remitly's vision is to transform the lives of migrants and their families by providing the most trusted financial services on the planet. Having already served more than two million customers with remittances, they are expanding access to essential financial services for U.S.-based migrants.

"Passbook is the next step in Remitly's mission to transform the lives of the millions of migrants around the world who make the huge sacrifice of leaving their families behind to live and work in another country," says Matt Oppenheimer, Remitly CEO and co-founder.

Built for migrants' unique needs:

- **Eliminating barriers to access:** Remitly brings its advanced identification technology and compliance to Passbook, enabling new customers to be verified digitally. Passbook accepts forms of identification common to migrants and their families such as an ITIN,[2] passport, and other foreign government-issued IDs like the Matricula Consular ID. A social security number isn't required to sign up.
- **No borders:** the Passbook account is designed to be used globally. Each account comes with a Visa® Debit Card and can be used everywhere Visa debit cards are accepted, including access to Visa's global ATM network in over 200 countries and territories. There are no foreign transaction fees when paying internationally. Customers can lock and unlock their card directly from the app without having to contact customer service.

[2] ITIN or an Individual Taxpayer Identification Number is a tax processing number issued by the Internal Revenue Service (IRS), income tax department of the US.

- **No account fees:** There are no monthly fees, no minimum balances required, no overdraft fees, and access to surcharge-free ATMs. Passbook account holders can access special pricing when using Remitly to transfer money internationally.
- **Secure:** Account funds are insured by the FDIC, up to $250,000 per depositor, through their partner bank, Sunrise Banks N.A., Member FDIC. Sunrise is a B-Corp with deep experience working with migrant communities.
- **Personal:** Passbook Visa debit cards can be customised with a national flag of choice by customers.

Passbook is a logical expansion for Remitly because there is a strong overlap between their typical target customer, and those living in a country like the US who are underbanked. It also gives them a new revenue stream — net interest and is marriage of banking and transfers. Asset Management is the next step.

Cross border products for small and medium enterprises (SME)

This is another area of expansion and is different to providing basic money transfer services to businesses. These products add value on top of remittances, similar to providing credit, savings and insurance.

Again TransferWise appears to be leading the way and so I will use a few examples from them to demonstrate what mean by 'products' for SMEs.

First, TransferWise integrated with recurring payments service GoCardless. Previously GoCardless customers could only collect recurring overseas payments if they had a local bank account in that market. Now GoCardless customers can collect recurring overseas payments at the real exchange rate in GBP, USD, EUR, SEK, DKK, CAD, AUD and NZD—all powered by TransferWise. They plan to continue their expansion of partnerships so users can collect recurring overseas payments from more than 30 countries without having to open a local bank account.

Second, an accountant's favourite tool, Xero, announced their integration in November 2019. It is the first "connected app" with TransferWise and has been a highly-requested feature by businesses using Xero for bookkeeping. This partnership means that small and medium-sized businesses in the UK can pay their bills with TransferWise, directly through the Xero platform.

The integration gives business owners and accountants a seamless process to pay multiple bills and reconcile the transactions in the easiest, most convenient way.

Third, the launch of TransferWise's open API makes it cheaper for enterprises needing to process large batches of transactions. Since these enhancements were announced, 10,000 new business customers have signed up to the service every month.

Another example is from WorldRemit who launched World Remit for Business, a new service that enables small and medium-sized business owners to quickly pay their employees and contractors in 140 countries worldwide, including fast-growing emerging markets such as Ghana, Nigeria, Kenya, and South Africa. The platform will first be available to UK registered businesses.

The Global Trade Review estimates that 30% of UK businesses trade internationally, but the speed and cost of transfers are a frustration for many SMEs—especially those sending money to regions with limited transfer options such as Africa and Southeast Asia.

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[3] UK trade briefing 2018. Available at https://perma.cc/RRJ8-768N

While some banks can take up to one week to process payments, over 90% of WorldRemit transfers are paid out within minutes.[3]

In 2019, World Remit raised $175 million in series D funding to diversify their product offering and to help launch into the business space.[4]

Can a money transfer operator become a super app?

At the heart of a super app is a payment wallet (or card on file), without which it is very difficult to offer a myriad of services (or at least to monetise them). It's not hard for a money transfer operator to spin up a wallet.

What is a super app?

A super app is an app that combines a bunch of services, allowing users to meet their everyday needs in one place and accomplishing many tasks without even leaving the app.

Super apps essentially give you access to a wide range of virtual products and services. In China, the most sophisticated apps like WeChat and Alipay bundle together messaging, social networking, ride hailing and provide third party developers the ability to create integrations called mini-programs, that offer users additional services.

In truth, these super apps don't have to do everything—but to be attractive, they must eliminate the friction associated with jumping between apps that consumers use today to get things done.

[4] WorldRemit website, 2019. Available at https://perma.cc/5PVN-CXKP

Uber has begun that journey by making UberEats part of the Uber app in some markets, creating its own currency called Uber Cash and by creating Uber Money, a team within Uber working on financial products that deliver additional value for the Uber community.

For now it looks like this is a bit of a stretch for a money transfer operator and perhaps too far out of their operating window. That said, you just never know—someone might find a way to do it.

Automated money

We're not that far off a world of automated money, in which apps anticipate their users' financial needs, notifying them that their energy provider has been switched (Monzo do this today), their mortgage refinanced, when they are overspending, or not saving enough for retirement.

Wealthfront with around $20 billion in assets under management, is a robo advisor that wants to automate all of its customers' finances. A client could one day deposit her paycheck with Wealthfront and the company would take care of just about everything else from there. Can a money transfer operator do the same for a migrant?

Overall, this is still very nascent and in the next 12-18 months, I expect to see a lot of innovation taking place. Incumbents will struggle to keep pace as more start-ups pop-up. Incumbents have scale and start-ups have innovative solutions. At some point we will see a few acquisitions.

Summary

Globally, neobanks are taking the fintech industry by storm by greatly simplifying financial services. There are two customer segments where money transfer operators are starting to offer particularly valuable propositions: banking for migrants and cross border products for small and medium enterprises. Incumbents will struggle to keep pace as more start-ups pop up.

- A neobank is a completely digital bank without any branches. They offer many advantages to customers, including hassle-free account creation, seamless international payments and a user-friendly interface.
- Most migrants find it difficult to open a traditional bank account in a new country. For a money transfer operator, it makes sense to provide migrants with a bank account as it would alleviate some of their difficulties and create long-term stickiness—so long as the provider's rates are competitive.
- Another area of innovation is cross border products for small and medium enterprises, by enabling tools such as recurring payments, bookkeeping, or quickly paying employees and contractors across multiple countries.

Chapter 11

New and existing revenue models for money transfer operators

Most money transfer operators have a simple revenue model: foreign exchange margin. Their annual revenue is the total funds transferred multiplied by the average margin. Some providers also charge an additional flat fee (e.g. $2.99 per transfer), which when multiplied by the total number of transactions, is added to their annual revenue.

There are three distinct types of formal transactions:

- Cash to cash
- Digital to cash (digital origination)
- Digital to digital (fully digital)

For the first two, providers are likely to continue using the same revenue model. While there may be some reduction in fees as technology continues to evolve, it's safe to say that accepting cash and or paying out cash is likely to carry a fee to cover inherent costs associated with cash. That said, there's a gradual shift towards digital transfers and this trend is likely to continue.

The third, digital to digital, is where the revolution will come (in fact, it arguably has already started - see Chipper Cash), and you don't want to be caught napping.

Incumbents vs. challengers

TransferWise started out 10 years ago as a challenger and whilst it wouldn't be fair to call them an incumbent, they have built an incredibly valuable business.

As of March 2019, they processed approximately $35.2 billion for the year, ending the year processing an impressive $5.2 billion per month. With revenue totalling $233 million (up 53%), they saw an average margin of 0.67% and net profit of $13.4 million (up 66%).[1] In May 2019, TransferWise became Europe's most valuable fintech start-up, valued at $3.5 billion, and gave employees and early investors the chance to sell some of their stake in a $292 million secondary deal.[2] Note that the company didn't raise any new funds.

They have introduced new products, such as borderless banking which was launched in 2017 (detailed in the previous chapter), that allows customers to hold their money in more than 50 different currencies and giving them multiple local bank account numbers in countries including the UK, the US and others. This has resulted in customers trusting TransferWise with over $1.3 billion in borderless account deposits.[3]

So far TransferWise's new products have purely aimed to drive more transfers, versus the product offerings described in chapter 9, with the exception of interest revenue from the total

[1] Transferwise data. Available at https://perma.cc/VJP4-UHY2, converted to US dollars

[2] TechCrunch. Available at https://perma.cc/CQ5E-8P5L

[3] Transferwise data. Available at https://perma.cc/VJP4-UHY2, converted to US dollars

deposits held in their borderless account ($1.3 billion x 1.75% totals to $22.8 million). This means they are still largely sticking to the current model, calculating their fee as a percentage of the total transfer. Additionally, their pricing appears to have stabilised and is no longer trending towards zero.

With six million customers, their valuation of $3.5 billion works out to $583 per customer, though much of the valuation is for future growth, which means its shareholders are expecting that number to grow more than eight-fold to around 50 million customers in the next five years. Also priced in is the belief that TransferWise will eventually become a neobank, giving them additional revenues.

Whilst TransferWise continues to lead the way in reducing their fees and finding more cost efficiencies, they are unlikely to be the first to go to zero—they have too much revenue to lose. That said, if they continue to launch new products that their existing customers find valuable, it's possible that they can grow their adjacent revenues fast enough to react to the market when it goes free.

In comparison, a challenger money transfer operator who hasn't amassed anywhere near the scale (and therefore doesn't have as much revenue, if any, to lose) can introduce free transfers to the market (e.g. Chipper Cash and Facebook's Novi). If they can then scale, everyone will have to pause and take note.

Don't wait until that happens. I would advise you to start planning for your future now. Your three- to five-year road map should include products (detailed in chapter 9 and 10) that will drive new revenue streams and or a clear roadmap to becoming a neobank. In both cases, you will need to offer additional products, in the first case via partnership and in the second (becoming a neobank) via your own balance sheet.

The reality is that it will take time to build up new revenue streams, which will be critical when the current model stops working. If you're not preparing for this revolution, it will be too late. You can't simply react to it later.

Let's return to my communication analogy and BlackBerry Messenger (BBM), which before WhatsApp, was the king of mobile instant messaging in 2009. They thought that by restricting BBM to BlackBerry devices, they would sell more of their devices. That clearly didn't work out for them and by the time they launched iOS and Android versions of BBM in October 2013, it was way too late. Though that wasn't immediately apparent—the pent-up demand for BBM meant that there were over 10 million downloads on the first day and in late 2013, BBM was the top free app on both the App Store and Google Play Store. Although hindsight is 20/20, and it's clear now that had they gone cross-platform in 2009, or even in 2010, they might have been right up there with WhatsApp, Facebook Messenger, WeChat and Telegram.

The thing is, in five years' time, you don't want to look back with hindsight. Here's your opportunity to look forward.

5.6bn in revenue

In 2018 Western Union moved more than $300 billion in principal around the world

Transacting in over 200 countries and nearly 130 currencies across 500,000 agents

Completing an average of 34 transactions each second

Case study: A look at Revolut's business model and revenue

Revolut, a neobank that started out with a multi-currency travel card, targeting travelers who were frustrated with their banks, derives their revenue primarily from net interest on customer deposits, interest from loans and merchants every time you spend on your Revolut Card. Premium subscribers pay a monthly fee for additional services. Revolut also makes money on ATM withdrawal fees, card delivery fees and exchange rates (between 0.2% - 1.5% per transaction).

Revolut now offers a multi-currency account, a foreign currency transfer service, instant credit through the Revolut app, the ability to buy crypto currencies and low-fee insurance (travel medical and dental insurance costs less than $2 per day) in an attempt to shift from being a prepaid card used mainly for overseas travel, to an international bank that customers use on a daily basis. With over 10 million customers, including about 1.1million daily users Revolut is driving a financial services revolution on a global scale.

Revolut for Business, was launched in July 2017, allowing customers to hold, receive and exchange money in 28 different currencies without astronomical charges — allowing Revolut to earn more net interest.

In October 2019, the company reported revenue growth from $16.9 million to $75.4 million (December 2018), and the company said it was on track to triple revenues again in 2019. Interestingly, revenues from premium subscription fees grew from $1.6 million to $21.8 million in 2018. Although it declined to give figures on subscriber numbers, dividing the revenue by average premium fees shows that they have over 1 million premium customers, representing ~10% of their total customer base.

Accounts filed with Companies House, show that Revolut (similar to TransferWise) had $1.2 billion in customer deposits at the end of 2018 and $48.1 million worth of cryptocurrency investments made by customers. Cash and cryptoassets held with Revolut rocketed by over 350% compared with 2017. Whilst this is the latest data at the time of writing (June 2020), it is safe to say this number is significantly higher now.

In February 2020, Revolut raised $500 million in a deal valuing the company at $5.5 billion, making it one of the most valuable fintechs in Europe. The transaction tripled London-based Revolut's last valuation and brings the total amount of capital the firm has raised to $836 million.

A look at Facebook's Novi

The newest kids on the block are Facebook's Novi (formerly Calibra), a virtual wallet for yet-to-be-minted Libra digital coins. The Novi digital wallet set to launch when Libra coins debut promises to give Facebook op-portunities to build financial services into its offerings, offer to expand its own commerce and let more small businesses buy ads on the social network.

The name 'Novi' was derived from Latin words for "new" and "way," according to an online post by head of the digital wallet project David Marcus, an industry veteran and former CEO of PayPal. No doubt, Marcus has built a formidable team at Facebook — a lot of bright minds. Facebook's foray into payments has been many years in the making.

"It's a new way to send money, and Novi's new visual identity and design represent the fluid movement of digi-tal currencies," Marcus said. The dream that Facebook and many others are chasing is to make sending money as easy as sending a message.

Whilst, rivals are free to build their own digital wallets for Libra, Facebook will flex their muscles by weaving Novi into Facebook-owned communication services Messenger, and WhatsApp — allowing users to send and receive money as easily as you message friends, family, and busi-nesses. Novi will work as a stand-alone app for smartphones, available on both the App Store and Google Play.

As for their business model, their website says "what you send is what they get. You can add, send, receive, and withdraw money from your wallet without worrying about hidden charges. Novi is cutting fees to help people keep more of their money." This is ominous for all existing money transfer operators.

The potential is massive and I for one wouldn't bet against Facebook. If they can pass the regulatory hurdles with Libra, then I'm certain they will be on their way to massive scale. Once they get to over a billion active users, monetisation will be a doddle. That said, unlike instant messaging which runs on a closed loop, ramping funds on and off the Libra platform will not be cheap and anyone attempting to compete will need to match Facebook's deep pockets.

New revenue models

Net interest on customer deposits

Whilst some fintechs like TransferWise, Revolut, Remitly and Chipper Cash have started moving in this direction, this revenue stream is still relatively new and, as I've said, the secret. It is the best revenue stream. Be it a wallet, an account, or savings and asset management products, aggregated customer deposits will generate revenue through interest even while you sleep.

Recurring revenue

Customers can subscribe to a range of products and services, from financial products like credit, auto-savings, or insurance, to non-financial products such as local media channels. These products are detailed in the previous two chapters. It's also important to determine which products would appeal to large parts of the existing customer base so that these value-add offerings can be transformed into recurring revenue streams.

Card issuance revenue

Similar to the Revolut Card, money transfer operators can issue physical and virtual cards (Visa/Mastercard) allowing customers to perform cross-border transactions including bill payments and purchases and earn revenue from merchants when the cards are used. Additionally there is a net interest generated on balances held, which is especially valuable as the stream scales up.

Commissions for product referrals

Based on the needs of your customer base, financial or non-financial products can be referred to them and a payout triggered when customers purchase a product through the referral. Product referrals can get more targeted as customer payment behaviors and purchase patterns are aggregated and analysed.

Advertising revenue

Advertising revenue will only work if user engagement changes from the current one visit every 4-6 weeks to something much more frequent. Even though it is unlikely to compare to apps that we use multiple times per day.

However, some products could still benefit from targeting migrants and if done well, there is revenue to be had.

Communication services

Over the years a few money transfer providers have tried to offer chat and free calls in their apps. On the surface it made sense, as migrants do want to keep in touch with family and friends, but requiring everyone to download their app was where most got stuck. The lack of network effects throttled any efforts and now that all the major messaging players have more than one billion users each, this opportunity is well and truly gone.

That said, I believe there is another opportunity coming - eSIMs.[4] Some became MVNOs5 (e.g. Merchantrade in Malaysia) but physical SIM distribution proved to be a challenge for many. That said, I believe there is another opportunity coming - eSIMs.[5] So far new phones like the Pixel 4, iPhone 11 Pro, and Motorola Razr boasts of eSIM support and it is only a matter of time before most phones support eSIM technology.That's when money transfer operators will have another opportunity to become MVNOs and provide migrants with data plans, creating further stickiness with their customers.

Leveraging your customer base

Many of the leading money transfer operators have built large customer bases over the years, who trust them with their hard-

[4] An eSIM is exactly what it sounds like: An electronic, or embedded, SIM. Instead of a physical SIM card, SIM technology is built right into your phone. It's a small chip that's used to authenticate your identity with your carrier.

[5] A mobile virtual network operator is a wireless communications services provider that does not own the wireless network infrastructure over which it provides services to its customers.

earned money. There's a lot of value that can be provided to these customers and by extension, additional revenue.

Customer lifetime value

I would also encourage you to look at the way you calculate your customer lifetime value (CLV). Currently, customers are not overly sticky (the barrier of passing KYC with another provider creates some stickiness), hopping to the next provider who's introductory rate is more attractive. When FX rates are no longer a competitive tool, providing additional products would be the way to create greater loyalty, retain a customer for longer and increase the frequency of transactions. So, while you may not replace your existing revenue with new revenue, you could perhaps maintain a similar CLV by retaining your customers for longer.

In fact an increase in customer retention rates by only 5% has been found to increase profits anywhere from 25% to 95%.[6] Therefore, increasing your expected CLV is critical. I would strongly encourage you to read the HBR article, The value of keeping the right customers (link below) as it is full of useful insights.

In case you are wondering what is CLV? Let me take a step back and explain. CLV represents the total amount of money a customer is expected to spend in your business, or on your products, during their lifetime.

How do you calculate the CLV of a customer? You need to calculate average transfer margin, and then multiply that number by the average transfer frequency rate to determine customer value. Then, once you calculate average customer lifespan, you can multiply that by customer value to determine CLV.

[6] The value of keeping the right customers. Availabe at https://perma.cc/YAX9-TCKR

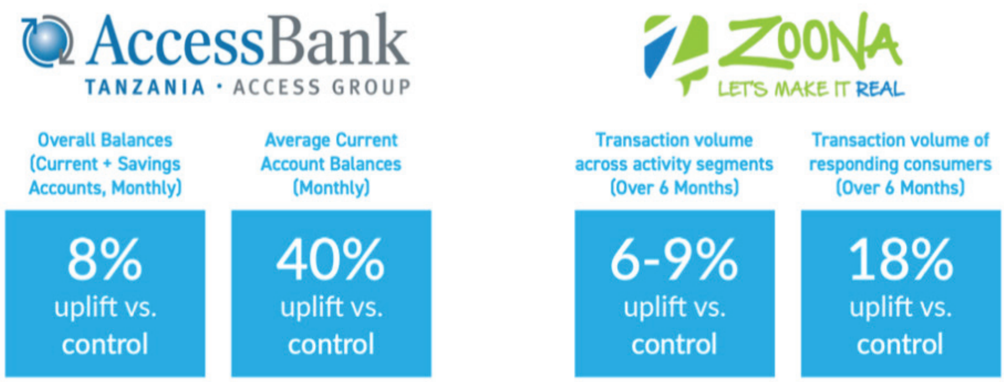
Customer Loyalty

How loyal are customers? If a customer has no sense of dedication to a particular brand, they are considered brand-agnostic. Building a sense of brand loyalty is important for any business as it directly correlates to an increase in customer retention rates and a decrease in churn rate. Brand loyalists will advocate on the company's behalf. As champions of the brand they will drive word-of-mouth marketing. Brands with loyal customers are likely to see a higher than normal CLV.

Case study: Mobile network operator (MNO) CLV

Juntos partnered with two very different financial service providers in Africa in order to demonstrate why developing long-term relationships with end users is worth the investment for financial institutions. Those two partners were AccessBank in Tanzania, a pioneer in digital banking that focuses on small and medium-sized enterprise financing, and Zoona in Zambia, a market leader with services including over-the-counter money transfer, microloans, and a digital wallet.

Applying the Juntos methodologies to develop relationships at scale with the institutions' customers yielded the following results:



[7] Juntos White Paper. Available at https://perma.cc/YS8W-HD34

Summary

While there's been a gradual shift from cash-to-cash formal transactions towards digital-to-cash transactions, the greatest revolution will come with the rise of fully digital transactions. This is where the current revenue model will stop working.

- Most money transfer operators have a simple revenue model: foreign exchange margin. Their annual revenue is the total funds transferred multiplied by the average margin.
- When the current model stops working, new revenue streams will be critical. These take time to build up and if you're not preparing for this revolution, it will be too late.
  You can't simply react to it later.
- Your three- to five-year road map should include products to drive new revenue streams or a clear roadmap to becoming a neobank. This could include revenue from: net interest on customer deposits, card issuance inter-change, and referral commissions, among others.

Chapter 12

Money transfers and financial inclusion

Migration and international remittances are an integral part of the world economy. For many of the unbanked and underbanked, the first point of access to financial services is often a remittance service. That service is a valuable hook and becomes the entry-point through which relationships are built and additional products and services can be offered to customers.

Therefore, money transfers and financial inclusion are a natural fit. Most recipients are heavily dependent on remittances for their income. Living in developing countries, many are not financially included and even of those who are, many under-utilise their bank account.

Two factors are helping to accelerate financial inclusion:

1. The shift from cash to digital is creating an opportunity to provide additional financial services to a demographic of people who were previously ignored.
2. The increase in payment infrastructure and digital financial service providers (mobile money) in developing countries.

These two factors are driven by the advances in technology. In the past, it was simply too expensive to provide banking services to certain segments, many of whom are recipients of remittances.

The first step is an account, and to start receiving the funds digitally. That then provides money transfer operators and new startups the opportunity to tailor financial products to recipients (detailed in chapter 9).

In spite of these advances in digital technologies, some 1.7 billion people today still remain unbanked, with virtually all unbanked individuals living in developing economies. Women remain overrepresented amongst the unbanked globally at about one billion, as well as individually in each economy.

Globally, about half of unbanked individuals come from the poorest 40% of households and the unbanked are disproportionately young.[1] The current system penalises those who can afford it the least. Doing nothing is not an option.

[1] The four largest developing economies with unbanked individuals are: China (224 million), India (191 million), Pakistan (99 million) and Indonesia (97 million). There are 980 million women globally without a bank account, of whom 132 million are in China, 109 million in India, 56 million in Pakistan and 47 million in Indonesia. 30% of unbanked adults are between 15 and 24 years old. See Demirgüç- Kunt et al (2018) and World Bank (2018).

“No-one should be excluded from banking and financial services.”

Matt Oppenheimer,
CEO and co-founder of Remitly

Increase the use of bank accounts and mobile money accounts

When a recipient collects cash from a cashpoint, it very rarely gets deposited in a bank account. In most cases it remains as cash, which comes with its own risks.

Bank accounts are safer places to store funds, compared to under the mattress, in a jar or any secret hiding place one can think of.

It can also earn some short-term interest, something the mattress can't offer.

When funds are received digitally, they are more likely to stay digital for a little longer. Whilst some recipients will withdraw the entire amount as cash immediately, others withdraw as needed. Important factors to consider are how accessible their bank is (branch, ATM), whether they are provided with a payment card, and if they live around merchants who have been on-boarded and accept digital payments.

In the last decade, mobile money has played a huge role in providing financial access to hundreds of millions of customers. The accessibility of funds through the mobile money provider's agent network increases utilisation.

To highlight the ubiquity of agents in countries where mobile money is thriving, users will transfer funds from their bank account to their mobile money account in order to cash-out their funds via an agent as there isn't a bank branch or ATM close by.

Receiving remittances into a bank account helps increase the individual's digital footprint, giving financial service providers and fintechs the ability to provide additional services, as detailed in chapter 9.

The EU's directive on payment accounts gives people in the EU the right to a basic payment account regardless of a person's place of residence or financial situation. The directive also improves the transparency of bank account fees and makes it easier to switch banks. Payment accounts - Directive 2014/92/EU

This legislation contributes to improving financial inclusion, including migrant workers and asylum seekers living in the EU. Banks already offering international cross-border transfer services to their existing customers will have to offer the same services to new basic payment accounts too. This measure will increase consumer's choices for making international payments.

Nonetheless overall, remittances do have a positive impact on financial inclusion in developing countries.

Studies show that remittances cause people to open bank accounts, savings accounts, and use other formal financial services that enable economic growth and development.[2]

It is therefore fitting to highlight and promote the economic and social value of remittances, which is why we now have an official International Day of Family Remittances (IDFR). Celebrated on 16 June every year, this special day was formally endorsed in 2018 by the United Nations General Assembly.

Providing a bank account to migrants via a partnership

UnityLink Financial Services partnered with The Change Account to provide a fully functional transactional banking account and debit card to all its customers. This account offers their customers an easy and secure payment method to pay for goods and services. Customers simply transfer money to their Change Account and use their Change Account Debit Card to enjoy sending money

[2] Remittances and Financial Inclusion: Evidence from Nepal, March 2018.
Available at https://perma.cc/SFG3-RLEY

to loved ones, withdrawing cash from any ATM worldwide, make in store and online purchases at home and abroad, check their balance 24/7 and manage their account online. This is especially useful for customers, who do not have a bank account or who are finding it difficult to open a bank account.

Women and remittances

Women comprise slightly less than half of all international migrants in 2019. The share of women and girls in the global number of international migrants fell slightly, from 49 per cent in 2000 to 48 per cent in 2019. The share of migrant women was highest in North America (52%) and Europe (51%), and lowest in sub-Saharan Africa (47%) and Northern Africa and Western Asia (36%).[3]

Whilst, women make up approximately half of all migrant workers globally, the persistent gender pay gap means that womens' wages are frequently lower than that of mens' wages, which is problematic when research suggests that female migrant workers typically send home a higher proportion of their earnings more frequently. Further, regardless of the gender of the sender, remittances are usually directed to mothers, daughters or to women looking after the children of migrants.[4]

According to the U.N., remittance sending behaviour of migrant women often involves a higher financial cost as they tend to send smaller amounts of their income more frequently and are subjected to paying more in transaction fees.[5]

[3] United Nations Department of Economic and Social Affairs.
Available at https://perma.cc/MGA3-L5RM

[4] Forbes: Online Remittances: Closing The Gender Gap.
Available at https://perma.cc/X9ZK-WG25

[5] UN Remittances and the SDGs - SDG 5.
Available at https://perma.cc/T4LT-3ZRQ

Studies show that women recipients are better at allocating those funds and prioritise the needs of the family. Often the money is spent on food and school fees. In comparison, when men are the recipients, often enough, the money is spent on ancillary items that are not always best for their families or their communities.

Receiving money in a bank account or digital wallet, instead of having to physically cash-out an international transfer, is a much more secure solution for women to receive and manage money.

One major challenge is the ability for women to verify their identity in order to get accepted by a money transfer operator.

According to Dr. Savita Bailur, an expert in gender and identity, if you don't have identity documents ... you don't exist. And women are particularly at risk of 'not existing,' starting right from birth registration. Further, according to the World Bank, she said, some 45 percent of women around the world do not even have a foundational ID. This type of exclusion is a result of a number of obstacles such as no access, ownership and society's expectations.

Digital remittances automatically create a history of transactions that can help individuals without traditional governmental identity documents. Which comes first, identity or remittance? Therefore finding a way to to process transactions for women with lower access to proof of identification is a priority for the international remittance industry.

Using remittance history, additional financial services can be provided to women that have no formal proof of identity to access traditional banking services.

Given women represent half their target market, money transfer operators should apply a gender lens when designing products to ensure that women's specific needs are met. These solutions need to be country specific, as there is a lot of nuisance in the challenges women face.

One example is Sini Tonon, a remunerated savings account that offers a one-year insurance (Tin Nogoya), launched in 2014 by Orange Money in Mali. The guarantees are life insurance, total disability insurance and coverage relating to expenses due to childbirth complications when the threshold of CFA 40,000 is reached on the savings account. As per GSMA, Sini Tonon is encouraging customers to save. 55 percent of women did not save before using Sini Tonon. Overall, 24 percent of Orange Money users in Mali are saving and using Sini Tonon regularly, while 4 per cent are insured by Tin Nogoya. In 2017, Orange expanded the product to include international transfers to Sini Tonon accounts. Users need to save 30% of their remittance to become eligible for maternal insurance.

Another example is Rise (*https://www.gorise.co*), a Dubai-based financial services company. In partnership with United Arab Bank, Rise provided Over 50,000 unbanked nannies with bank accounts, as part of their aim to help domestic workers, the majority of whom remain unbanked. Additionally, Rise tied-up with UAE Exchange to offer better exchange rates for migrant workers registered on their app.

Initiatives money transfer operators can tap into United Nations Capital Development Fund (UNCDF)

In 2019, UNCDF launched a new programme 'Building inclusive digital economies for migrants' as part of their *Leaving No One Behind in the Digital Era* strategy.

Their vision is to promote digital economies that leave no one behind. With a shared goal to develop inclusive digital economies that foster private sector development and support migrants and families towards economic inclusion, financial resilience, and reduced inequality.

Taking a market development approach, UNCDF will mobilize partners and deploy its resources in four strategic workstreams:

1. Enabling Policy and Regulation
2. Open Digital Payment Ecosystem
3. Inclusive Innovation; and
4. Empowered Customers

Through flexible grants, loans and guarantees, UNCDF aims to deliver financial and technical assistance to a wide range of financial institutions (e.g., banks, money transfer operators, mobile network operators, fintechs, microfinance Institutions). They seek to improve the ecosystem for remittances to move through digital channels and to be linked with financial products and services tailored to the needs of migrants and families.

For the financial service industry:

- Opportunity to reach new or bigger market segments with products and services they will value.
- Opportunities to collaborate with new partners and pursue innovation.
- Diversify revenue channels, cross-selling opportunities, and additional liquidity.

If this is of interest, please contact Amil Aneja, Lead Specialist, Migration and Remittances at *amil.aneja@uncdf.org*

International Fund for Agricultural Development (IFAD)

Also in 2019, IFAD launched PRIME – Platform for Remittances, Investments and Migrants' Entrepreneurship in Africa, with a goal to improve the management of remittances and their use for development impact in Africa.

With better financial education and a broader range of financial services to choose from, remittance recipients are empowered to make financial choices that can advance them towards financial resilience.

The ability to expand financial services, however, depends on institutional capacity, willingness to offer services to low-income people, and on regulatory frameworks that enables them to do so.

PRIME Africa aims to address these development opportunities by financing and supporting innovations, partnerships and replicable/scalable products that promote cheap and fast remittance transfers. By helping maximize the impact of remittances for millions of families, PRIME Africa will contribute to foster local economic opportunities in the migrant workers' countries of origin.

If this is of interest, please contact Pedro de Vasconcelos, Senior Technical Specialist - Coordinator, Financing Facility for Remittances (FFR) at *p.devasconcelos@ifad.org*

Looking at the future

There are about 3.5 billion smartphone users today,[5] and whilst the majority are in developed markets, strong growth in emerging markets continues. It won't be long before smartphones are truly ubiquitous and in everyone's hands. Then you have all the power of the bank branch in your palm. You can do transactions instantly and don't have to wait in line to turn one form of currency into another to pay a bill. Doing everything right from your phone will dramatically decrease cost and the amount of time people spend transacting.

Financial inclusion involves so many players. It's not led by one entity, but instead by a collaborative effort of banks, mobile operators, government agencies, regulators and more. If we can bring the best of the assets of the money transfer industry together, thereby bringing billions of people into the emerging digital economy and making sure nobody is left outside the system, it would be a great achievement for the industry and something we should aim for.

[5] Statista, February 2020. Available at https://perma.cc/QFA3-AZWW

Summary

Money transfers and financial inclusion are a natural fit. Most recipients are heavily dependent on remittances for their income, and are either excluded from or underserved by formal financial services.

- Receiving remittances into an account helps increase the individual's digital footprint and has a positive impact on financial inclusion in developing countries.
- Once smartphones are ubiquitous, the power of the bank branch will be in the palm of your hand. This will dramatically decrease cost and the amount of time people spend transacting.
- Bringing billions of people into the digital economy through a collaboration of the money transfer industry's best assets would be a great achievement for the industry.

Conclusion

Remittance flows have increased significantly in recent decades as more people have moved overseas for work and are sending money home to support their families. International money transfers are a lifeline for millions of individuals as well as whole communities, as they help to pay for basic needs and provides for people, particularly in rural and underdeveloped regions.

Within a few years, money will move freely and these three factors that will make micro-transfers free or near zero:

1. Regulation: e.g. EU reg on pricing for Euro transfers to non-Euro currencies within the EU – one day to the next regulation wiped out huge margins.
2. Technology: the money you send will be the same money that is received (as detailed in chapter 3)
3. Competition:

- Drives innovation, reduces margin e.g. TransferWise
- New entrant will look to change the game e.g. Chipper Cash
- Facebook's Novi – if it ever gets Libra off the ground or a similar service

For money transfer operators, these dangers are clear and present. The ideas in this book should be food for thought for any money transfer operator thinking about their future.

And so for the final time, here's that secret again, when transaction fees disappear (zero or near-zero FX margin) the best way to earn revenue is net interest from holding customers' funds, by offering a wallet, account, savings and asset management products — the beauty is that these funds then earn you revenue while you sleep. TransferWise, Revolut, Remitly and Chipper Cash have started moving in this direction. Today, all money transfer operators use their own resources to pre-fund accounts. A day will come when this is reversed and net funds held will belong to customers.

Transactional businesses used to be very profitable. Thirty years ago pre-internet, virtually every business was based on a transactional model: telegrams, phone calls, stock broking, etc. Over time new models emerged, fixed price all you can eat where those who didn't eat a lot subsidised those who did. This gave birth to cross-subsidy models, that were quickly adopted by banks who realised the best way to make money from high networth individuals is not from fees but from holding their money—and so almost every bank has a 'prefered customer' tier, and those customers who qualify virtually don't pay any fees. Eventually internet start-ups (now internet giants) discovered the model and never looked back.

Remember, all banks have a treasury management team, who manage the banks overnight cash. They make the money work while we sleep and on average this accounts for a third or more of their revenue and 60–100% of their profits (see page 90). That said, I am in no way suggesting you become a bank, look at E*TRADE and other zero-fee stock trading firms who make the majority of their revenue from net interest without being a bank.

If there is one thing you take a way from this book, I want it to be this—the world is moving away from transactional business models.

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To my wife for her unconditional support even though she believes I should have a 9-5 job, bringing in a steady income. My parents for believing in me from a young age and allowing me to go off the beaten path. My family and friends who played key roles during my early years and my first career as a bean counter.

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Finally to James Dugan who inspired me to write this book. Check out his travel guides at: *www.walkaboutphotoguides.com*

About Arunjay Katakam

Arunjay Katakam is a former EY consultant (bean-counter) and an Indian tech founder who has co-founded multiple startups, exiting three — one of which sold to Twitter.

For over a decade, he has had a deep belief that poverty is solvable, that every person on our planet should have their physiological and safety needs met. It was this belief that led him away from a career in investment banking to financial inclusion before the global financial crisis.

The COVID-19 pandemic made him pause and on reflection realise he needed to immediately shift his focus to the last billion, those who have sadly been left behind as part of our current socio-economic structure. This realisation led Arunjay to create the Inclusion Action Lab, a non-profit think tank and action lab that is working holistically towards closing the economic, financial and digital divide for the last billion people. With a firm belief that you can't meaningfully close one divide without addressing the other two.

A highly regarded payment expert, Arunjay spent five years at the GSMA, co-authoring the 2013 and 2014 State of the Industry report: Mobile Financial Services. In 2015 Arunjay won a grand challenge grant from the Bill and Melinda Gates Foundation to simplify mobile money payments for mass market-adoption and continued innovating with the IPB Hub, and harmonised Mobile Money APIs. As advisor to the Head of GSMA's Mobile Money programme, in 2018 Arunjay led the strategy pivot to shift the mobile money industry to a Payments as a Platform approach and helped secure $17 million funding for phase 4 of the programme.

In 2016, Arunjay was an early founder at the DFS Lab and designed the programme to support start-ups in emerging markets. As master mentor he ran the first three of DFS Lab's fintech bootcamps, five-day design sprints to build and test concepts and has mentored over 20 start-ups. More recently he started venture building, supporting inclusive fintech startups with Catalyst Fund.

As founder and CEO of Yooz, Arunjay is leading a revolution in remittances. With the marginal cost of transferring money from the UK to India reducing to near zero, whilst incumbents continue to charge high fees – Arunjay is transforming the money transfer industry one payment at a time.

A true global citizen, Arunjay moved halfway around the world from India to Trinidad and Tobago at the tender age of 22 and has visited over 30 Countries across six Continents.

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Publications

- GSMA 2013 State of the industry: mobile financial services for the unbanked
- GSMA Setting up shop: Strategies for building effective merchant payment networks (2014)
- GSMA 2014 State of the industry: mobile financial services for the unbanked
- GSMA Embracing payments as a platform for the future of mobile money (2019)

Selected blog posts available at www.arunjay.com

- IndiaStack can help India recover from COVID-19, but execution is critical
- Mobile money providers score a major win – but are they at risk of losing it all?
- Opportunities and challenges for mobile money in emerging markets
- Merchant Payments: Choosing the right pricing model
- Accelerating mobile credit: Could a universal credit score be the answer?
- Long live the feature phone: what it means for digital financial services
- Mobile savings and credit: Riding the rails of mobile money
- Mobile-Led insurance: Evolving approaches in an advancing field
- The evolution of cross-border transfers: new infrastructure for MNOs to increase remittance volume

"A must-read for money transfer operators
- rookies and pros alike."

Hayden Simmons, Market Strategy, Novi – Facebook

"This book will inform and inspire a much-needed
digital revolution in remittances space."

Nika Naghavi, Director of Data & Insights,
GSMA Mobile Money

"Excellent insights into the money transfer industry.
A helpful roadmap to new opportunities
and challenges in an ever-changing space."

Daniel Shi - Director, Strategic Partnerships – Remitly

This inspiring book explains exactly why micro money transfers matter, how they impact billions of lives, and the importance of transparency in an industry riddled with *confusion* pricing. It outlines the future of micro money transfers and how the *underserved* are being brought into the formal financial system globally. It provides money transfer operators with a clear blueprint on how to pivot their business model and future-proof their business.

Arunjay Katakam is a former EY consultant who has co-founded multiple startups — one of which sold to Twitter. Arunjay is the founder and CEO of a cross-border remittance startup called Yooz. He also advises founders at DFS Lab and Catalyst Fund. In 2020, Arunjay created the Inclusion Action Lab, a non-profit that is incubating moonshot ideas to end poverty for the last billion people by 2030.

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