Working Paper

Guidelines on International Remittances through Mobile Money

September 2017

Mobile Money

The GSMA represents the interests of mobile operators worldwide, uniting nearly 800 operators with almost 300 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and internet companies, as well as organisations in adjacent industry sectors. The GSMA also produces industry-leading events such as Mobile World Congress, Mobile World Congress Shanghai, Mobile World Congress Americas and the Mobile 360 Series of conferences.

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The content of this working paper solely reflect the views of the GSMA and the authors.

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Part 1 – Background

Making mobile money work for international remittances

Mobile money has established itself as a critical tool for facilitating international remittances[1], while reducing remittance costs and maximising the impact of remittances on development. Because of its reach and growing use among underserved people, mobile money is uniquely positioned to transform formal remittance markets and to advance financial inclusion. Mobile money providers are at the forefront of domestic payment services in many emerging market economies. In 2016, the number of registered mobile money accounts surpassed half a billion (556 million). Today, mobile money can be used for international transfers in 51 of the 92 countries where the service is available.

Different partnership models have enabled this: mobile money providers can connect directly with other remittance service providers (RSPs)[2] such as a money transfer operator (MTO) or another mobile money provider, or indirectly through an international remittance hub (IRH) (see text box 1). Mobile money providers should have the ability to select the partnership model that best suits a particular context to achieve efficient and affordable international remittance services through mobile money.

1. This document focuses on international consumer-to-consumer remittances; it does not cover business-to-consumer and business-to-business transactions.
2. In this report, we are using the terminology defined by the Bank for International Settlements and the World Bank in the "General principles for international remittance services" (available here: http://siteresources.worldbank.org/INTPAYMENTREMMITTANCE/Resources/New_Remittance_Report.pdf). Specifically, Remittance Service Providers are defined as follows: "There are many different ways in which remittance transfers can be made, including, among others, cash payments using individuals who provide this service to their local immigrant communities, services from specialised global money transfer operators, bank-to bank transfers and card payments. (...) Any person or institution providing such a service as a business is called a remittance service provider (or RSP). However, the report does not cover those whose services are based on purely physical transfers of cash (e.g. where a person travelling back to the home country carries the cash on behalf of the sender, or where cash is sent by post or courier from one country to another)."

TEXT BOX 1

Creating partnerships to enable international remittances through mobile money

Partnerships between mobile money providers have emerged quickly and, overall, the GSMA has identified 51 country corridors where mobile money can be used to send and receive international remittances, up from eight at the end of 2013. In 2015, for example, MTN Group and Vodafone Group announced their agreement to enable remittances between six African countries.

Traditional money transfer operators are also collaborating with mobile money providers. Today, Western Union customers anywhere in the world can send funds to Tigo Money accounts in a number of Latin American countries. The same is true for sending to Bangladesh's bKash mobile money accounts, in an arrangement facilitated by Mastercard technology. Internet-based payment providers are also getting involved. These companies have global reach and substantial experience in the remittance business, bringing additional expertise and robust compliance systems to the table.

Mobile money providers can also work with international remittance hubs such as HomeSend, MFS Africa, TerraPay and TransferTo to connect with other remittance service providers. An international remittance hub is a switching platform connecting and enabling transfers between two or more remittance service providers. The range of services provided by hubs can change depending on each legal and commercial agreement, but typically they facilitate the clearing and settlement of balances between the connected remittance service providers, and perform sanctions-screening on the sending and receiving customers with the information provided by the remittance service provider. Hubs do not have direct contact with the end customers, and the ultimate responsibility and liability for the services they provide will always remain with the remittance service providers. International remittance hubs play a key role in the fast and secure opening of new international remittance corridors.

Regional payments integration efforts have also gained momentum, though the path to regional infrastructure and regulatory harmonisation is long. For example, multi-stakeholder discussions about the establishment of international remittance hubs are advancing in the East African Community, Southern African Development Community, West African Monetary Union, and the Northern Corridor initiative in East Africa.

As the industry matures, and with the rapid development of innovative technologies such as blockchain and distributed ledger technology*, new models will continue to emerge.

* FSD, "Blockchains, Distributed Ledgers and Funds Transfer: An Overview" (2017). Available at: http://www.fsdafrica.org/wp-content/uploads/2017/08/Blocchains-02.08.2017.pdf

Developing Guidelines for the industry

Mobile money providers are committed to facilitating international remittances in a safe and responsible manner. In part, they achieve this by leveraging robust controls already in place to facilitate risk management for large domestic transfer services. To understand mobile money providers' best practice in this area, the GSMA set up a working group comprising leading operator groups offering mobile money services (Millicom, MTN, Vodafone and Orange) and international remittance hubs (HomeSend, MFS Africa and TransferTo). The GSMA also sought guidance from a number of regulators and international experts. This work builds on previous research conducted by the GSMA on international remittances, in particular in the areas of remittance costs[3] and licensing[4].

The resulting Guidelines on International Remittances through Mobile Money (referred to as 'Guidelines' throughout the document) illustrate how the mobile money industry and its partners are collaborating to ensure that international transfers conducted through mobile money are facilitated in a safe and secure manner, consistent with global standards and local monetary policy and regulations.

This document focuses on technical and operational considerations and provides an overview of the industry's best practices in the following areas: (i) reconciliation and settlement; (ii) data security and APIs; (iii) due diligence; (iv) customer identity management systems; and (v) consumer protection. Beyond the technical aspects of interconnecting remittance services across different markets, adopting the right governance and business models for all parties involved are key factors in choosing the appropriate model for a particular context[5].

This document also includes examples of how the Guidelines can be implemented, acknowledging that different market and policy contexts have an impact on operational models. Mobile money providers might, for example, adjust practices relating to settlement or the repatriation of funds to ensure compliance with local laws designed to ensure that regulators have effective monetary sovereignty. We hope that this document will contribute to raising awareness of the industry's best practices and that it will support the dialogue between regulators and the private sector. This is critical in order to build mutual understanding and to address barriers to market entry and scale in the remittance business for mobile money providers[6].

We also recognise that the remittance industry is undergoing a period of wide-reaching change. New technologies, business models, international goals and other factors will shape the context for risk mitigation by mobile money providers over the coming years, and thus will also shape the tools used by providers to continue to facilitate international remittances in a safe and secure manner. Ongoing dialogue between mobile money providers, international remittance hubs, regulators and other relevant stakeholders will be critical to ensure that these Guidelines continue to evolve as the industry matures.

3. Farooq, S., Naghavi, N. and Scharwatt, C., "Driving a price revolution: Mobile money in international remittances", GSMA (2016). Available at: https://www.gsmaintelligence.com/research/?file=8F31B31705C20A63A41DB9711BF84C25&download
4. Farooq, S., "Licensing mobile money remittance providers: Early lessons" GSMA (2017). Available at: https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2017/02/GSMA_Licensing-mobile-money-remittance-providers_Early-lessons-1.pdf
5. CGAP, "Digital Financial Interoperability and Financial Inclusion" (2016). Available at: http://www.cgap.org/sites/default/files/interoperability.pdf
6. Farooq, S., "Licensing mobile money remittance providers: Early lessons" GSMA (2017). Available at: https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2017/02/GSMA_Licensing-mobile-money-remittance-providers_Early-lessons-1.pdf

Setting the scene: International remittances in context

Formal international remittance flows to emerging markets amounted to US$ 429 billion in 2016[7]. These flows continue to exceed both foreign direct investment and official development assistance. In countries such as Haiti, Liberia and Nepal, they represent over a quarter of the GDP[8]. Their impact at the individual level is no less significant. More than US$ 100 billion in remittances is used each year for education and health (10%), savings and investment, and other income-generating activities (15%)[9].

International remittances also play an increasingly important role in the context of humanitarian crises. The United Nations High Commissioner for Refugees (UNHCR) estimates that more than 65 million people are forcibly displaced worldwide[10]. An additional 25.4 million people are displaced every year due to natural disasters and climate-related events[11]. International remittances can provide a lifeline for these people, offering a way to receive money from family and friends to buy food, to access services, and to improve their livelihoods.

In 2016, the international community rallied behind the UN Sustainable Development Goal target of reducing migrant remittance transaction costs to a global average of 3% by 2030[12]. Reaching this target could result in up to US$ 20 billion per annum in additional resources flowing directly to households[13]. The mobilisation of philanthropic and state efforts to lower costs is occurring at the same time as new technology-based commercial solutions are increasing competition, enabling cheaper prices and accelerating financial inclusion.

Against this promising backdrop, a number of concerning trends have nevertheless emerged. De-risking behaviour by international correspondent banks, in response to rising compliance costs and fines, has raised provider costs and stifled competition. This undermines the ambition of lower transaction costs and greater access to formal channels. Competing pressures are also apparent at the policy and regulatory level, as reflected by the introduction of taxes on international remittances. According to the World Bank, the total value of formal remittance flows to emerging markets has declined for two successive years, for the first time in recent history[14].

7. World Bank, "Migration and remittances: Recent developments and outlook" (2017). Available at: http://pubdocs.worldbank.org/en/992371492706371662/MigrationandDevelopment-Brief27.pdf
8. World Bank data available at: data.worldbank.org
9. IFAD, "Sending Money Home, Contributing to the SDGs, one family at a time" (2017). Available at: https://www.ifad.org/documents/36783902/4a5640d9-e944-4a8c-8007-a1bc461416e6
10. UNHCR data. Available at: http://www.unhcr.org/uk/figures-at-a-glance.html
11. CGAP, "The role of financial services in humanitarian crises". Available at: http://www.cgap.org/sites/default/files/Forum-The-Role-of-Financial-Services-in-Humanitarian-Crises_1.pdf
12 SDG 10c reads as follows: "by 2030, reduce to less than 3% the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5%". These transaction cost benchmarks are set with a US$ 200 transaction size in mind.
13. Supriyo De, "Reducing remittance costs and the financing for development strategy" (18 December 2015). Available at: http://blogs.worldbank.org/peoplemove/reducing-remittance-costs-and-financing-development-strategy
14. World Bank, "Migration and remittances: Recent developments and outlook" (2017). Available at: http://pubdocs.worldbank.org/en/992371492706371662/MigrationandDevelopment-Brief27.pdf

Highlighting the benefits of mobile money for international remittances

For remittance senders and recipients, mobile money opens the door to a host of benefits:

- ***Reducing remittance costs to achieve SDG 10.c –*** Where recipients opt to retain their money in digital form, the cost of sending remittances from a mobile money account is, on average, 50% lower than doing so via traditional channels. Even when mobile money funds are cashed out immediately, the end-to-end transaction cost is, on average, 21% cheaper than the main formal alternatives[15]. Recent results from the World Bank's Remittance Prices Worldwide initiative – the global reference – echo these findings and the fact that, in many corridors, mobile money international sending costs are already below the SDG target of 3%.

- ***Advancing financial inclusion of migrants and their families –*** Mobile money is uniquely positioned to connect the receipt of international remittances with broader financial inclusion. People who receive a remittance on their mobile money account have the option to store it safely and use these funds in a number of ways without cashing out all the money immediately. For example, they can make digital payments to buy goods such as milk from a local merchant (e.g. Lipa Kwa M-Pesa in Tanzania) or to pay for school fees for their children (e.g. Orange Money in Côte d'Ivoire) or to pay for utility bills (e.g. Tigo Money in El Salvador). People receiving international remittances on their mobile money account can even use the money received to buy government bonds (e.g. M-Akiba in Kenya), enabling the investment of remittances in the local economy. Innovative credit scoring models can also leverage the payments history of people who receive international remittances through mobile money to help them access more sophisticated financial services. These include credit and savings services (e.g. M-Shwari in Kenya) as well as insurance services (e.g. Tigo Kiiray in Senegal).

- ***Increasing convenience and empowering users –*** Mobile money can also address time scarcity. With mobile money, people can send or receive international transactions whenever it suits them. Freedom from the opening hours of a traditional remittance agent can make life easier for those based in remote areas or those who manage inflexible work schedules. The density and reach of mobile money distribution networks also means that, when one does need to interact with an agent, that agent is likely to be relatively close. In 2016, mobile money providers were served by over 4.3 million agents, reaching beyond urban enclaves. For example, the majority (60%) of Airtel Money customers in Burkina Faso who receive international transfers from Côte d'Ivoire are in rural areas[16]. Price and convenience are, however, not the only aspects that consumers value about mobile money. Account holders can conduct transactions independently; they can do so from the safety of their homes; and they retain a record on their mobile device of what has been sent. While less tangible than cost savings, attributes such as privacy, security and transparency can weigh heavily in the decision of whether to use a formal digital channel over informal alternatives.

15. Farooq, S., Naghavi, N. and Scharwatt, C., "Driving a price revolution: Mobile money in international remittances", GSMA (2016). Available at: https://www.gsmaintelligence.com/research/?file=8F31B31705C20A63A41DB9711BF84C25&download
16. Scharwatt, C. and Williamson, C., "Mobile money crosses borders: New remittance models in West Africa", GSMA (2015). Available at: http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/04/2015_MMU_Mobile-money-crosses-borders_New-remittance-models-in-West-Africa.pdf

- ***Reaching women –*** Using mobile money as a channel for international transfers can help to bridge the gender gap in three ways. First, women are often more price sensitive than men[17]. Mobile money can ease affordability barriers by reducing remittance transaction costs by over 50 percent. Second, the reach of mobile money distribution networks can play a critical role in ensuring that women can access formal remittances. Recent UNCDF research[18] shows that 60% of remittance recipients in Cambodia, Lao PDR and Myanmar are women and that 75% of these women live in rural areas. Third, by lowering safety concerns in managing, converting and transporting large amounts of cash, mobile money can make formal channels more attractive. Women migrant workers – 100 million in total – send remittances more regularly and consistently than men[19].

- ***Accelerating the transformation of rural and agricultural remittance households –*** The presence of agents in rural areas and remote places has been critical to the success of mobile money in many markets[20]. Data from WorldRemit indicates that mobile money tends to be the preferred method for receiving international remittances in rural areas[21]. Mobile money providers are also well placed to offer value-added services that can help farmers and small producers to increase productivity by advising them on weather conditions, pest outbreaks and new farming techniques. In this way, mobile money international remittances can help to strengthen the resilience of rural households. This is particularly important in the context of climate change, as adverse local weather conditions are increasingly causing and exacerbating financial shocks.

- ***Reducing the risks of money laundering and financing of terrorism (AML/CFT) –*** Mobile money can help regulators to manage the risks of money laundering and the financing of terrorism. There are signs, for example, that mobile money is eroding the informal remittance market, rather than simply cannibalising existing formal transactions. Eighteen months after launch, the value of Orange Money cross-border remittances between Côte d'Ivoire, Mali and Senegal was equivalent to 24.7% of the total formal remittance value previously recorded by the World Bank as flowing between these markets.[22]

17. GSMA, "Bridging the gender gap: Mobile access and usage in low- and middle-income countries" (2015). Available at: https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2016/02/GSM0001_03232015_GSMAReport_NEWGRAYS-Web.pdf
18. UNCDF, "Remittances as a driver of women's financial inclusion" (2017). Available at: http://www.uncdf.org/article/2173/remittances-as-a-driver-of-womens-financial-inclusion-in-the-mekong-region
19. IFAD, "Sending Money Home, Contributing to the SDGs, one family at a time" (2017). Available at: https://www.ifad.org/documents/36783902/4a5640d9-e944-4a8c-8007-a1bc461416e6
20. In Mali and Chad, for example, we observed strong customer uptake and agent performance in rural border towns, refugee settlements, rural marketplaces, and remote mining towns. "Spotlight on rural supply: Critical factors to create successful mobile money agents" GSMA (2015). Available at: https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/10/2015_GSMA_Spotlight-on-Rural-Supply-Critical-factors-to-create-successful-mobile-money-agents.pdf
21. Scharwatt, C., "Key takeaways from our IMT Workshop at Mobile 360-Africa", GSMA (2017). Available at: https://www.gsma.com/mobilefordevelopment/programme/mobile-money/key-takeaways-imt-workshop-mobile-360-africa
22. Scharwatt, C., and Williamson, C., "Mobile money crosses borders: New remittance models in West Africa", GSMA (2015). Available at: http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/04/2015_MMU_Mobile-money-crosses-borders_New-remittance-models-in-West-Africa.pdf

Enabling mobile remittances through regulation

In this increasingly complex environment, public and private sector actors are seeking ways to deepen collaboration to encourage more people to opt for formal regulated channels such as mobile money over informal channels. The progress of mobile money international remittances is, in part, the result of a growing willingness by regulators to facilitate market entry by non-traditional providers. In Ghana, for example, electronic money issuers such as mobile money services have been allowed to channel inbound remittances. In countries such as Rwanda and Tanzania, regulators have gone a step further, allowing licensed electronic money providers to both receive and send international remittances. This process of establishing a more level regulatory playing field for companies interested in facilitating international remittances has increased competition in a number of markets, with positive results for consumers.

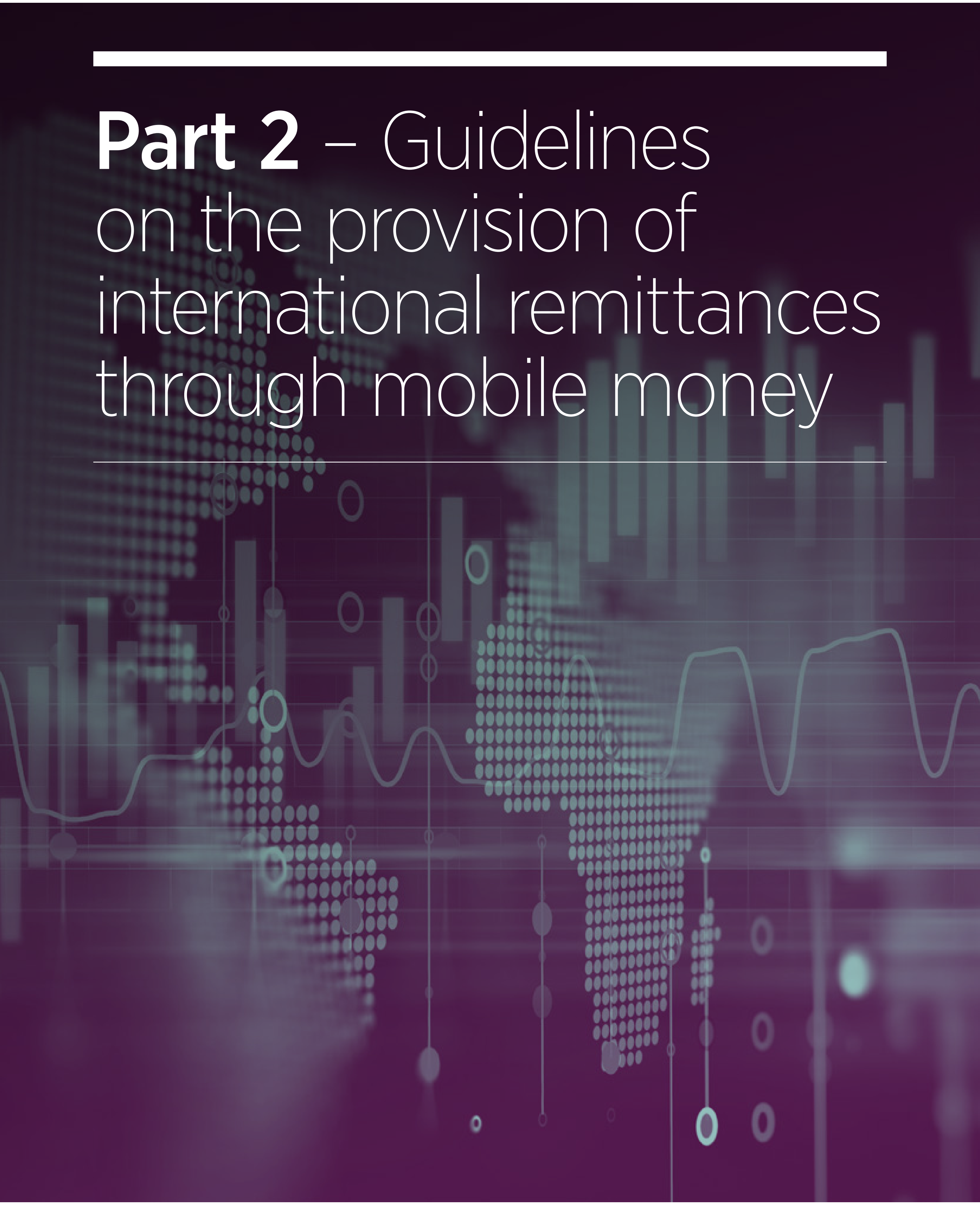
However, in many markets, regulation remains a challenge to the expansion of mobile-based remittances. Where mobile money providers can secure approval for facilitating international remittances, they often face uncertainty around the requirements and timeframe for a response from the regulator. In around two-thirds of countries where mobile money can be used for international remittances, only inward remittances are in scope, while mobile money customers in the remaining countries have the option to both send and receive international remittances. This largely reflects the challenge of obtaining licenses to send, which has implications for the competitiveness of intra-regional remittance corridors. Standardised and transparent licensing criteria, as well as fixed maximum response times, could go a long way toward facilitating business planning and encouraging investment.

Similarly, the process of securing approval to connect new corridors via a previously approved hub could be streamlined. The approach taken by Zambia is instructive: providers can receive a general approval for the use of a transaction hub, enabling them to add new remittance corridors by notifying the regulator of this intention. In many other markets, each new corridor requires a separate approval process that can take weeks or even months to conclude[23].

While licensing is the biggest and most common obstacle faced by mobile money providers in this space, other issues need to be addressed, such as differences between international and domestic Know Your Customer (KYC) requirements within a country, differences in KYC requirements between sending and receiving countries, and differences in transaction and balance limits between countries[24]. Such approaches must be balanced against the legitimate needs of regulators to manage capital flows, to ensure consumer protection, to prevent crime, and to act within existing capacity constraints. Open and constructive public-private dialogue, together with a collective focus on common goals, is essential to shaping the way forward.

23. Farooq, S., "Licensing mobile money remittance providers: Early lessons", GSMA (2017). Available at: https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2017/02/GSMA_Licensing-mobile-money-remittance-providers_Early-lessons-1.pdf
24. AFI, "Mobile-enabled cross-border payments" (Guideline note 14, August 2014). Available at: http://www.afi-global.org/sites/default/files/publications/mfswg_guideline_note_no_14_eng.pdf

Part 2 – Guidelines on the provision of international remittances through mobile money



|1| Reconciliation and settlement

The traditional means of sending international transfers through the banking system is only cost-effective for large-value transactions. Completing transactions also typically takes around two days[25]. This does not cater to the needs of low-income people, who tend to send more regular, low-value transactions to recipients who are often deeply reliant on this as a source of income[26].

In order to facilitate low-cost and rapid reception of funds, mobile money providers and their partners (whether MTOs or international remittance hubs) have adopted a number of mechanisms, including prefunding agreements and reliable tech-based reconciliation and settlement processes. Mobile money providers use working capital to prefund the settlement accounts while customer funds are set aside in a trust account, or safeguarded through equivalent mechanisms, in accordance with local regulation. This is critical to ensuring the protection of customer funds.

An international remittance transaction sent through mobile money can be divided into three main layers, regardless of whether or not an international remittance hub is involved: communications, netting and reconciliation, and settlement. The communication layer involves the exchange of transaction information between the parties. This layer can be facilitated by the use of standardised Application Programming Interfaces (APIs), and governed by the practices described in the next section. The netting of the operation typically happens using special prefunded settlement accounts, while the final settlement is always made using the reliable and transparent rails of the banking system.

To ensure fast and effective reconciliation and settlement, while minimising the risks associated with these processes, mobile money providers have adopted the following best practices:

A. ***Near real-time communications:*** Reconciling accounts is an information exchange process in which the parties track the amount of money sent and received and what each party owes to each other. Where feasible, this communication process is conducted in real-time or near-real time, which ensures a good user experience. Best practices for this process include the use of high standards of security in the data exchanged, as explained in the below section on data security and APIs. The agreements between the parties include mechanisms for resolving any discrepancies identified in the reconciliation process. Real-time communications allow risks to be minimised and settlement accounts to be updated.

B. ***Frequency of settlement:*** Having an open position implies a counterparty risk. For this reason, many mobile money providers and their counterparties agree in advance on the frequency of account settlement. The specific frequency of the settlement can vary in each case, depending on the regularity and value and volume of transactions along each corridor. In corridors that are very active, the best practice is to settle at least once every day. In some corridors or periods of the year that are less active, settling daily may not be necessary to adequately manage risk. Best practice also includes pre-setting thresholds to trigger the settlement mechanisms when value, international FX rates, or other variables, reach a certain level. Mobile money providers applying best practice do so on the basis of clearly documented settlement parameters and decision-making processes. This brings clarity to the organisation and to commercial partners. It also enables regulators to see that established processes are being followed.

25. International transfers in the banking system use a distributed payment systems that is credit-based. This model has its own inherent risks. To minimise these risks, banks wait for all system participants to submit their payment instructions before actually transferring the value, a process that normally takes 24-48 hours (and sometimes up to 3-5 days, depending on holidays, etc.).
26. IFAD, "Sending Money Home, Contributing to the SDGs, one family at a time" (2017). Available at: https://www.ifad.org/documents/36783902/4a5640d9-e944-4a8c-8007-a1bc461416e6

Example of good practice:

Millicom has a group-wide cash management policy by which every transaction with third parties – either international or domestic – must be reconciled on a daily basis. This reduces counterparty risk across the whole group and simplifies the risk assessment and compliance processes. This simplifies the settlement process that is later performed according to the individual terms agreed with the partners.

C. ***Working with hubs:*** When a mobile money provider has integrated with an international remittance hub, all parties connected to the hub sign a multilateral settlement agreement. In these cases, the hub performs a net settlement at a defined frequency against all connected providers. Each provider then settles bilaterally with the hub, normally using prefunded settlement accounts for this purpose. The frequency of the settlement is pre-fixed using risk-based criteria agreed by all the parties.

D. ***Adapting practices to local context:*** Central banks in different markets have adopted different monetary policies and regulatory frameworks, depending on their economic context and historical background. These can introduce different requirements into the settlement process, whether in frequency or in the rate at which the foreign exchange operation is liquidated. For example, while some countries allow capital to flow relatively freely across borders, others impose strict rules to enable the maintenance of a fixed exchange rate. Other countries have a dollarised economy. Mobile money providers and their partners adjust settlement practices and policies around the repatriation of funds to comply with local regulation, ensuring that regulators have effective monetary sovereignty. For example, even in cases where settlements occur offshore, mobile money providers are legally bound to ensure that the repatriation of funds happens in accordance with local monetary policy and regulation.

|2| Data security and APIs

Mobile money providers are companies licensed by central banks (or equivalent financial authorities) and authorised to provide domestic digital financial services. Thus, mobile money providers are required by domestic regulations, in most markets, to have robust systems in place to properly identify, assess, monitor and control operational risks. These systems include mechanisms to ensure the protection of data exchanged outside of the organisation, such as the use of cryptography and network security controls. Systems and applications are designed and developed securely and are thoroughly tested.

International remittances involve the transmission of financial and personal data to a partner located in a foreign jurisdiction. Complex transactions increase the risks associated with the integration of platforms, creating more potential vulnerabilities for cybercrime and human error. For this reason, it is especially important to ensure the security and integrity of communications. Best practices applied by mobile money providers include ensuring that the protection of the information includes the use of APIs to simplify communications, reducing communication risks, and the use of high encryption standards to prevent cases of hacking or fraud (see text box 2).

TEXT BOX 2

Harmonising mobile money APIs to raise industry capabilities

In October 2016, the GSMA published a first set of harmonised mobile money APIs. Following a year-long industry engagement, these APIs were jointly designed by key stakeholders—mobile money providers, platform vendors, third party service providers and industry partners—and combine best practices in the technology industry.

The aim of the harmonised Mobile Money APIs is two-fold. First, we want to ensure that best practice from the tech industry in API design, security design, and others is made accessible to the mobile money industry. Second, we want to address the complexity and fragmentation that is apparent in the fast-growing, bottom-up mobile money industry. The GSMA is encouraging its members and mobile money industry partners to raise the bar by using these APIs to ensure rapid partner on-boarding, to offer advanced and secure functionality, and to reduce the fragmentation that limits and delays regional partners from leveraging mobile money.

The APIs have been designed to cater for a core set of mobile money use cases including international remittances. Alongside the GSMA Mobile Money API definitions to standardise the connection between API clients and mobile money platforms, the GSMA has also produced complementary security implementation guidelines. These security guidelines ensure that:

- Applicable security measures and best practices are applied to the connection between the API client and the API gateway.
- Applicable security measures and best practices are applied to authenticating an end user to the mobile money platform.

Source: Camner, G., "Launching GSMA Mobile Money APIs to raise industry capabilities", GSMA (2016). Available at: https://www.gsma.com/mobilefordevelopment/programme/mobile-money/launching-gsma-mobile-money-apis-to-raise-industry-capabilities

Best practices that have been adopted by the industry include:

A. All electronic information exchanges related to transactions with third parties are made through secure channels to ensure the protection and integrity of data. Encryption encompasses global best practice in line with the recommendations of the Cryptographic Technology Group of the US National Institute of Standards and Technology.

B. The use of authentication algorithms for providers' systems ensure data is shared only with trusted parties.

C. The application of the ISO/IEC 27001 standards for information security management systems (ISMS) to ensure the secure management of financial and personal data.

D. The development of channel security policies that describe relevant controls and assign clear responsibilities to each party involved.

E. The use of APIs to improve service functionality and data richness, providing, among other things, sufficient data to relevant parties to ensure best-practice AML/CTF, fraud prevention, and sanctions screening.

Example of good practice:

Orange's International Money Transfer Service (IMT) relies on a secure global infrastructure and requires external connections to meet information security criteria including: availability, integrity, confidentiality, traceability and authorisation. Security policies and technical security requirements are formalised by the Orange Group Information Security Management System (following ISO/IEC 27001).

All connections to partners through the external API use VPN tunnels and secure communication protocols to achieve data integrity and confidentiality. Customers' credentials are encrypted and not transmitted to the infrastructure of commercial partners. The external API is developed according to Orange Group security development recommendations and is aligned with GSMA recommendations (Mobile Money APIs – Security design and implementation guidelines).

|3| Due diligence

Conducting a robust initial due diligence process when choosing potential partners is particularly important in the context of international remittances, in which potential partners are located and incorporated in foreign jurisdictions. Conversely, failure to go through strict due diligence processes would introduce significant risks, which can have financial and operational repercussions for mobile money providers[27]. Due diligence for international partners must be enhanced to account for all the additional risks of potential partners, such as legal risks associated with political instability, or financial risks associated with inflationary economies. This is a crucial step to mitigate legal, operational, credit and liquidity risks as well as risks of money laundering and terrorism financing.

Best practices in conducting a due diligence process for international partners include:

A. Prior to contracting with a new partner, mobile money providers typically conduct robust initial due diligence to assess the associated risks, including a review of legal, operational, credit and liquidity risks as well as a review of its participants and controls. This involves assessing the potential partner's risk management systems in order to have a thorough understanding of the partner's rules and procedures, as well as any responsibilities and settlement-related risks that it may assume. Mobile money providers should also check that the potential partner has the appropriate policies, procedures and internal control structure to adequately manage its risks and to fulfil its responsibilities to their other parties and clients. This assessment should be conducted using a risk-based approach to verify information and independently identify all the facts provided.

B. Best practice also involves conducting regular due diligence of partners to ensure that mobile money providers are engaging with responsible remittance service partners at all times. While contracts between the mobile money provider and its international partners require that the partners provide updates on any significant change in their processes or controls that may affect the mobile money provider's risk exposure, some providers conduct independent due diligence on their partners on a regular basis to verify that the information provided by their partners is correct.

C. Similarly, international remittance hubs should conduct appropriate due diligence on the entities to which they connect, prior to connecting, and on a regular basis thereafter.

D. Due diligence processes should extend to any beneficial owners of the partner company, to ensure that those with a significant stake are fit to be involved in the remittance business.

E. End-to-end testing is carried out before enabling transaction flows with a new partner to identify and address issues and risks.

Example of good practice:

Vodafone's M-Pesa legal agreements with hubs require hubs to conduct due diligence on potential and existing partners. Further, where appropriate the relevant legal documentation is put in place between all parties to enable sharing of such information to satisfy any compliance obligations.

27. Deloitte Forensic Centre, "International business partner due diligence. How much is enough?" (2013). Available at: http://deloitte.wsj.com/cfo/files/2013/07/international_business_partner_due_dilligence.pdf

|4| Customer Identity Management Systems

Verifying customer identity is crucial to ensuring funds reach the correct destination and to maintain the integrity of the financial system. This means putting systems in place to proactively prevent fraud, money laundering and other crimes. As licensed financial companies, mobile money providers are required to comply with KYC requirements of local regulators. This involves not only verifying the identity of a potential customer, but also cross-referencing that identity against international and domestic sanctions lists.

In some countries, KYC requirements imposed when a customer is sending an international transfer are more stringent than those required when a customer is making domestic transfers. In contrast, in most countries, KYC requirements when a customer is receiving an international transfer are the same as for when the transaction received is domestic in origin. Mobile money providers have extensive experience in this domain. The onus to comply with KYC regulations specific to sending international transactions therefore typically lies with the service provider on the sending end of the transaction.[28]

Best practice in Customer Identity Management Systems (CIMS) include:

A. Applying effective and systematic practices, including deploying automated transaction monitoring systems capable of delivering high-quality transaction monitoring to detect and prevent fraud and suspicious activities, and to enable reporting to relevant authorities.

B. Capturing the names of all customers, their dates of birth and addresses (where applicable), as well as any other information required by local legislation. Mobile money providers then screen the information against domestic and international sanctions lists (OFAC, EU and UN at a minimum) at the time of establishing a business relationship, to ensure that only those with the right to transact across borders are able to do so.

C. Adjusting KYC policies at the market level to comply with local regulations, while aligning them with the Financial Action Task Force (FATF) Recommendations on the prevention of money laundering and countering the financing of terrorism.

D. Where legally possible[29], mobile money providers should ensure that information captured on the sender and receiver of the transaction message is in line with FATF's Recommendation 16 on Wire Transfers.

Note that where mobile money is only used as a receiving channel for the international transfer (normally working as an agent of an MTO), mobile money providers conduct the KYC process and screening of their customers when they open their mobile money account. Their partners on the sending side of the international remittance transaction are responsible for complying with the local KYC and screening requirements of the sending jurisdiction, which might include additional screenings of the receiving costumers.

Example of good practice:

Vodafone has a policy in all markets to conduct effective, systematic transaction monitoring for suspicious activity on all international remittances sent and received. When relevant, suspicious activity reports are made to the local Financial Intelligence Unit and additional support and information is provided to the regulators for their investigation purposes as needed. There are documented processes in place to support this, to ensure that reports are made promptly and with sufficient detail.

28. However, part of that onus is that the sending service provider has to identify who the recipient is; if the receiving service provider cannot identify the receiving customer to the sending RSP's satisfaction, then the sending service provider will not undertake business with that receiving RSP.
29. In some markets, privacy legislation restricts companies from sharing personal information, such as KYC data, without a court's order.

|5| Consumer protection

International remittances add a level of complexity to normal domestic person-to-person (P2P) transactions, as there can be more than one service provider involved, at least two jurisdictions and, in most cases, at least two different currencies.

For these reasons, it is particularly important that the parties involved in an international remittance transaction communicate to their customers in a simple and clear manner the terms of the contracts, including around the costs associated with the transaction and the redress mechanisms available should anything go wrong in the transaction.

GSMA has identified the following best practices with regard to consumer protection:

A. Proactively advise customers of any scheduled service downtime, to avoid unnecessary delays or confusion when sending transactions.

B. Establish clear procedures to swiftly engage with the receiving provider to reverse mistaken transactions within pre-set (and communicable) timeframes of receiving a sending customer's request – wherever reversal is possible – to minimise the impact of customer errors.

C. Provide customer support and publish contact information online at all retail and agent points to ensure customers have a point of contact whenever they are transacting.

D. Inform customers of avenues for escalating complaints, where these are available, to ensure they understand their options, as well as external alternatives to the mobile money providers' internal mechanisms.

E. Clarify who is responsible for resolving customer complaints at all stages in the payment process. It has to be clear to the customer that their provider should always be the single point of contact for raising complaints.

F. Inform the senders about the opportunity, timeframe, mechanisms and reasons for which they could request the reversal of a remittance.

G. Where an international remittance hub is involved, legal agreements with mobile money providers include procedures by which the hub and the providers can identify if the complaint relates to the hub's action. These procedures include response times and specify points of contact (dedicated, in some cases) to ensure the prompt resolution of complaints. Note that hubs do not have a direct relation with end-costumers. All complaints are conducted and resolved by the remittance service provider.

Example of good practice:

Vodafone's IMT model ensures that customer's funds are protected and received in real time by prefunding a ring-fenced account in the mobile money system. Where there are anticipated downtimes, customers and partners are advised ahead of time to ensure that customers can prepare and send or receive money before the service is disrupted.

Conclusion

International remittances are critical to the livelihoods of hundreds of millions of people in the developing world. They also present unique risks that mobile money providers – particularly those run by mobile network operators – are well placed to manage. Mobile technology is one of the most exciting forces shaping how people send and receive international remittances today. Around the world, people are shifting from traditional channels to their mobile phones. The revolution in domestic payments is now being repeated in international transfers. This is helping to reduce costs, bringing us closer to the achievement of the UN Sustainable Development Goals and putting more money and options in the hands of families to transform their lives.

However, a number of barriers still remain, slowing down the much needed expansion of mobile money international transfers across a greater number of countries. These include the lack of enabling regulation, largely stemming from a limited understanding of the business models of new digital players, low levels of customer trust, and the established nature of cash-based transfers.

Some of these barriers can be addressed through greater awareness of the industry's best practices, and we hope that this document and set of Guidelines will help to facilitate public-private dialogue on international remittances. As noted, dialogue is critical to building mutual understanding and ultimately to lifting barriers to entry and scale in the remittance business for mobile money providers. The mobile money industry is providing international remittance services of the highest standard, allowing underserved communities to send and receive international remittances using formal, safe, efficient and affordable services.

A few points need to be highlighted:

- **These Guidelines are a first attempt to capture the industry's best practices.** Ongoing dialogue between mobile money providers, international remittance hubs, regulators and other relevant stakeholders will be critical to facilitating the evolution of the Guidelines, as new technologies develop and as the industry matures.

- **While these Guidelines provide a good overview of best practices at a global level, it is important to consider them in the context of local regulations and market dynamics.** The specificities of international transaction corridors need to be taken into consideration when implementing the Guidelines. For example, best practices may differ depending on whether the corridors in question leverage mobile money to send remittances, receive remittances, or both. Best practices may also vary across different types of corridors depending on the volume of transactions and whether or not transactions are mostly going in one direction.

- **Regardless of the local context and operational model, mobile money providers are capable of operating at the highest standard.** Therefore, different operational models for the provision of international remittances using mobile money should be allowed, as this is crucial to ensuring technical efficiency, cost efficiency, and agility to open new corridors quickly. For example, regulators and policy-makers are encouraged to consider the role of international remittance hubs and to allow in-principle approval of partnerships undertaken via a vetted hub.

As the GSMA continues to support the industry to scale international remittances through mobile money, we invite all interested parties to join forces and to work with us to offer better remittance solutions to migrants and their families.

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