

## Internet-Based Transfers: Current Landscape<sup>1</sup>

Internet-based products have grown substantially in recent years, and constitute an important source of innovation for the industry. There are a wide range of vehicles, and companies are increasingly designing and offering these products. In doing so, they hope to reach new customers, provide faster and more convenient services, and in some cases, reduce costs.

But when it comes to cross-border money transfers, the marketplace is still very incipient. On the demand side, in the U.S. to Latin America and the Caribbean corridor, we find that over 6% of remitters use some form of internet-based transfers.

Although these products present important opportunities for businesses and consumers, the low rate of penetration merits further discussion and analysis. The article concludes that perhaps the issue is still more structural, that the ecosystem of payment services is performing unevenly, partly due to poor financial access among clients and merchants.

## Internet-Based Payment Systems

One of the central features for the development of modern financial services is internet-based stored value funds. As Niall stresses,<sup>2</sup> this is a departure from the conventional functions of direct banking, where electronic fund transfers and accounts (EFTs) were tied to brick and mortar banks. Technological innovations, growth in non-banking financial institutions, and increased regulatory flexibility towards these institutions<sup>3</sup> led to the exploration of online capabilities.

The subsequent development of internet-based payment systems can be understood in terms of five core capacities: expansion of authorized entities to hold electronic funds, fund purpose, vehicle, functionality and complex integration of funds into the financial ecosystem. Innovations in software and hardware technologies have determined the performance of these capacities, which in turn translate into the products that companies offer to consumers.

Internet-based products offer a 'value proposition' to consumers by serving as a gateway for financial access. This proposition is one that

- Offers functional, usable services (what you can do with them),
- Presents a broad and complex scope (a variety of means for funding, withdrawals, payments, services, and/or transfers), and
- Provides the consumer with financial capability (they impact the financial inclusion of the user, opening doors to use additional products or features).

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<sup>1</sup> Manuel Orozco and Laura Porras, February 2017. From *Data Release*, Remittance Industry Observatory.

<sup>2</sup> Niall, Ferguson. *The Ascent of Money*, Penguin Press, 2008.

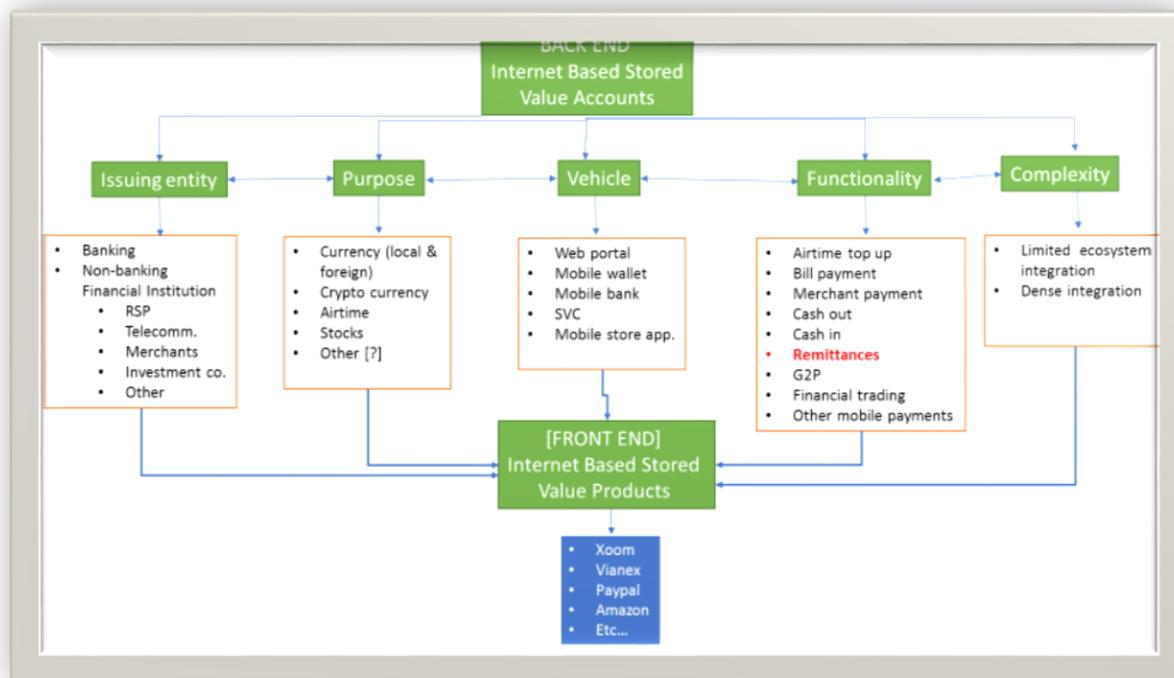
<sup>3</sup> Specifically, the FDIC and the Treasury allowed them to offer stored-value products without a full depository license.

These systems are important from both a business and a development perspective; they offer key competitive advantages and serve as outlets for financial access. For example, they may be more affordable, accessible, and functional than brick-and-mortar systems. In an ideal scenario, consumers pay lower costs when using these systems, can access them through various outlets, and their functional properties allow consumer to adopt them without the ownership of a bank account, while still complying with financial rules and regulations.

There are various front-end and back-end software technologies that allow payment systems to operate through the internet. The scope of operation includes everything from a bank’s software application to a webpage portal through which you may perform a financial transaction to a specific store or an individual using a store’s financial services. Overall, these financial products rely on back and/or front end technology software applications or hardware to perform functional, complex and accessible payment services. These products may also combine internet-based and brick-and-mortar solutions.

The following graphic shows the diversity of front and back-end tools, as well as the diversity of entities, purposes, vehicles, and functionalities that come in to play in terms of internet-based systems.

**Graphic 1: Tools for Internet-based Financial Solutions**



As has been mentioned, there are many possible combinations. The table provides a non-exhaustive overview of various internet-based payment vehicles offered.

**Table 1: Internet-based Products**

	Description	Examples	Relationship to remittances
Web-based portals	Provide access to products usually available at branches or other locations through the internet. They are very widespread for banks, retail stores and other institutions.	Online banking, Amazon.	Many remittances companies have web-based portals.
Mobile wallets	Provide a payment option through the use of a mobile phone. While some will carry out the payment via a transfer from the user's bank account, credit or debit card (even allowing for the client to choose from various products he or she owns), others will have some type of independent account for the service usually mediated by a service provider (ie. phone service company.)	Geocode, Loopay MPesa	Very few experiences in cross-border remittances. Most are country or niche-centered. The "account creating" type (which are not dependent on the existence of a previous banking product) <sup>4</sup> provides financial access to the unbanked, thus increasing its impact on development.
Mobile Banking	Provide access to banking services, based on an existing banking relationship, through mobile phones. This may occur through messaging systems or internet access. The specific interface may also be an app.	Almost any major bank will have one.	International transfers are not always offered through these services.
Smart phone Payment Apps	Links a pre-existing payment method (such as a debit card, credit card, or bank account) with a specific retailer to make payments for that retail transaction.	Starbucks, Xoom, Remitly.	At least one MTO has reported growth in number of transactions per customer among app users. <sup>5</sup>
Web-based or Cryptocurrencies	Include "Virtual" currencies developed for transactions, which have their own exchange rates, not regulated by any banking system. Most are niche centered. So far, very volatile and more of a high risk investment product than an actual currency. Undergoing legal scrutiny.	Bitcoin, Amazon Coin	Very dependent on availability of exchange options, which are quite limited thus far for the general public.

As a final note in terms of product structure, the most valuable impact these types of products have on financial inclusion is that they depend on the issuing of an electronic account, in order for the consumer to use his or her funds through the account to perform financial transactions. These accounts can hold balances and can be used as a tool to send or receive payments. They may be funded by cash, or other type of deposits, like airtime, crypto currency or store credit. Access to an account enabled through these vehicles has a number of advantages:

- Access to various payment platforms and outlets (such as retail stores)
- Ability to save formally and in some cases, earn interest
- Access to more financial services, especially since they provide information to build a credit history
- More secure methods to keep money.

The combination of these attributes enhances the possibilities for consumers, particularly in terms of financial inclusion.

<sup>4</sup> Also known as "electronic stored value accounts".

<sup>5</sup> Not only has the use of these services shown growth, but people using them usually send more money and more often, as Xoom representatives pointed out, according to Xoom's Q4 2013 Earnings Conference Call, <http://ir.xoom.com/events.cfm>

## Marketplace Statistics for Mobile-Based Remittance Transfers

Mobile devices, working as financial transaction and payment vehicles, have become one of the most popular methods for internet-based payments. Even so, the use of a mobile device is not always linked to a new account; it may use an already existing banking account, for example.

When it comes to money transfers (domestic and cross-border), the use is still very limited, as the World Bank shows in the table below.<sup>6</sup> Table 2 presents overall use of mobile technology to send and receive money, a portion of which is domestic. Although the data has some limitations,<sup>7</sup> the numbers are illustrative of very low usage.

**Table 2: Use of Mobile Phones to Send and Receive Money**

Region:	Used Mobile to send, %, 15+ years	Used Mobile to receive, %, 15+ years
Sub-Saharan Africa (developing only)	11.34	14.68
Europe & Central Asia (developing only)	3.17	3.28
East Asia & Pacific (developing only)	1.03	1.21
Latin America & Caribbean (developing only)	0.82	1.90
South Asia	0.77	1.89
Middle East (Developing only)	0.74	1.79
<b>Region by Income Level</b>		
Low income	7.57	9.66
Middle income	1.60	2.40
High income	1.31	1.64

WorldBank data, last available Year (2014-2015) for “Mobile phone used to send money (% age 15+) [wave1]” and “Mobile phone used to receive money (% age 15+) [wave1]” Accessed February, 2016 <http://data.worldbank.org/>

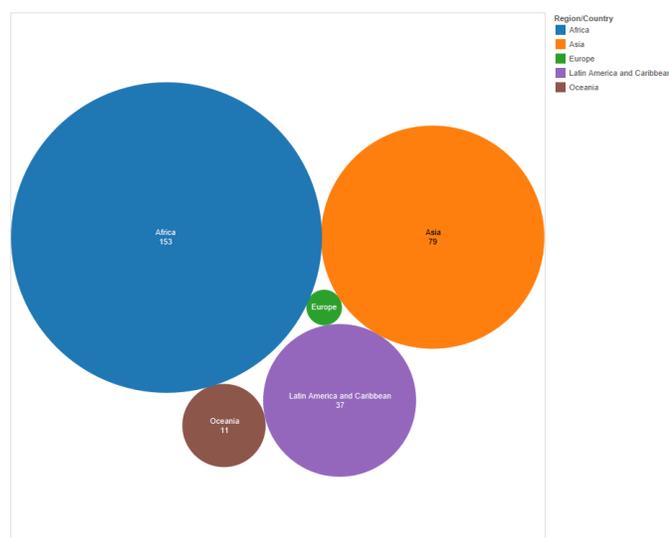
Despite this slow evolution, according to the GSMA<sup>8</sup> there is a growth in mobile financial products. The figure below displays the ranges and distribution of services. Africa is, by far, the region where more mobile services are available, and services that allow peer-to-peer transfers are the most common.

<sup>6</sup> For a detailed analysis on the factors driving this trend, see the May 2014 RIO Newsletter.

<sup>7</sup> Some data limitations include, for example, the fact that the Africa figure is somewhat in question, and may reflect a pattern in one country, Kenya. Also, important markets such as the U.S. have no reported data.

<sup>8</sup> <http://www.gsma.com>

**Figure 2: Mobile Financial Products per Region**



Source: www.gsma.com

The products mapped by GSMA are varied and refer to services that the industry is offering. The most common types are those used for peer-to-peer transactions and air time top-ups. Bill and merchant payment products are also relatively common. Other products offer “Cash out” and “Cash in” features, which are very important for users to be able to fund their payments or transfers, as well as to carry out cash operations or out of network payments or deposits.

Finally, GSMA also maps mobile products that offer international remittances. These services are available for all regions, but there are very few in Africa and Asia. Each feature a product offers is counted as one service in order to reflect the number of products available to carry out a transaction.<sup>9</sup> For example, if a product in Latin America and the Caribbean offers both peer-to-peer transactions and Airtime top up features, it is counted once under each service. The list, while not comprehensive or exhaustive, is representative of the general pattern.

**Table 3: Mobile Services Available per Region – Developing Economies**

Services:*	Africa	Asia	Europe	LACA	Oceania	Grand Total
Peer-to-Peer transactions	146	74	2	35	11	268
Airtime top up	136	65	2	28	9	240
Bill payment	120	64	2	25	8	219
Merchant payment	99	40	1	20	6	166
Cash out	86	44	2	23	2	157
Cash in	81	45	2	23	2	153
Other bulk payment	79	33	1	13	2	128
International remittances	<b>50</b>	<b>26</b>	<b>1</b>	<b>7</b>	<b>5</b>	<b>89</b>
Link to other banking products	30	17	0	2	4	53

<sup>9</sup> For example, if a product in Latin America and the Caribbean offers both peer-to-peer transactions and Airtime top up features, it is counted once under each capability.

Services:*	Africa	Asia	Europe	LACA	Oceania	Grand Total
Loan disbursement or repayment	13	9	0	1	1	24
G2P	8	10	0	2	0	20
Mobile microinsurance	6	4	0	1	0	11

\* Each feature of a single product is counted as one, thus a product with more than one capability is counted under each category. Total Products (n) for the survey is 282 Source: Global Mobile trends, October 2016. GSMA, [www.gsma.com](http://www.gsma.com).

In the U.S., cross-border money transfers using internet based platforms are growing little by little. There are a few remittance service providers that cover over 70 corridors. The following table shows six RSPs offering remittances to a wide range of corridors around the globe:

**Table 4: Internet Based Products offered by Remittance Service Providers – Coverage**

	MoneyGram	Remitly	Vianex	Xoom/ PayPal	WorldRemit	Transfast	Western Union
<b>Sending Countries</b>	Around 40	Canada, United States, United Kingdom	United States	United States	52	United States	37 through webpage, 16 on mobile App
<b>Receiving Countries</b>	200+	India, Mexico, Philippines	32	56	125	51	200+

Source: Survey (phone, apps, and web pages) of remittance companies. December 2016.

These RSPs come in the way of mobile software applications and present opportunities to offer interesting products and features, such as tools to meet compliance documentation. Remitly, for example, allows customers to send an ID through a “picture capture” feature built in the app. Some also offer communication between sender and receiver, such as a chat or text, or updates on transfers. Finally, they may offer “request” features for receivers to send to their family abroad, as in the case of Xoom.

Company data helps shed some light on how these services translate into consumer usage. Specifically, revenue and business activities do suggest that transactions are growing. Western Union quarterly internet based transactions for 2016 varied between 20% and 29% of all transactions. MoneyGram reported this figure on IQ2016 as 23% of transactions. Xoom, a PayPal service, is 100% digital, meaning all its transactions are internet-generated. These three players are among those with the largest digital presence.<sup>10</sup>

In 2015 Western Union served about 22 million transactions per month, 6% of which are westernunion.com, the majority of it U.S. outbound, that is roughly 1.3 million monthly transactions, of which we estimate 500,000 are to Mexico and the rest of Latin America and the Caribbean.<sup>11</sup> Meanwhile, Xoom’s monthly transactions were estimated at 1.5 million in 2015, half of which are to the Latin America and the Caribbean region, and all of them are internet-based. This totals 1.25 million per month, if we add approximate volumes from companies like MoneyGram, Remitly, Wells Fargo, BTS-Univision, which are offering internet based services, we can conclude

<sup>10</sup> Companies report this indicator through diverse names, but we group those including internet solutions by a computer, mobile device, or other similar device.

<sup>11</sup> <http://www.businesswire.com/news/home/20161101006302/en/Western-Union-Reports-Quarter-Results>

that total internet based monthly transactions to the region may amount to 1.5 million, or roughly 9% of all U.S. outbound transfers.<sup>12</sup>

### Usage of Products and Barriers for Adoption: the Demand Side

On the demand side, the use of mobile sending among Latin American and the Caribbean migrants is overall low, but higher than the average for high-income countries.

For example, a 2016 survey among this population shows only 7% of them have sent remittances through mobile phones (see Table 5). Use of mobile as a vehicle for cross border remittances requires ownership of technology (advanced mobile devices), ownership of a bank account, a payment vehicle (like a software application in the mobile device of the type noted in Table 1), and the willingness to use it by the sender.

The table below shows that Mexican migrants have the highest rate of usage for mobile remittances. They are followed by Ecuadorians and Colombians. Access to bank accounts is also high among these three populations. Interestingly, over 15% of those interviewed, use mobile for various types of payments and transfers, but not remittances.

**Table 5: Mobile Technology Usage by Migrant Country of Origin, 2016 Survey Results**

Respondents who have	Tried sending mobile remittances	Used their mobile phone to shop online	Used their mobile phone to make payments	Has a bank account in the US
El Salvador	2%	19%	17%	66%
Honduras	4%	16%	14%	46%
Guatemala	4%	19%	25%	52%
Mexico	8%	25%	26%	71%
Cuba	5%	26%	15%	90%
D.R.	4%	23%	19%	76%
Ecuador	8%	26%	20%	72%
Colombia	5%	19%	16%	87%

Source: Inter-American Dialogue, Survey of Latin American and Caribbean Migrants in the United States, 2016. Weighted average is 7%.

Migrant surveys also shed light on some of the barriers to adoption of mobile sending methods. In the study of 1,000 migrants in the United States, 42% of migrants said they would switch to mobile sending methods. The number is lower than reported in 2013 when it was 47%. The drop may reflect the fact that many consumers had already switched from cash-to-cash transfers to account-based transfers. For example, in 2010 the percent of migrants using mobile transfers was 3%.

The use of internet based solutions is more wide-spread, where 9.5% of respondents said they have used online sending services, compared to the 5.7% that have tried sending money through a mobile phone. When asked what

<sup>12</sup> See Table 2, Remittances and Transactions to Latin America and the Caribbean, in *Strengthening Presence and Consolidating Competition: An Outlook on the Money Transfer Industry in the U.S. to Latin America and Caribbean Corridor*, 2016.

would convince them to change sending methods to online, migrants’ responses were varied. Pricing was one key factor and knowing how to do it the second one.

**Table 6: Factors that Migrants Say Would Make Them Switch to Online Sending, 2016 Survey Results**

What would make you switch to online sending	%
Better Prices	39.0%
If I knew how to do it	18.3%
If it was easier to register	16.0%
If it was more secure	13.7%
If I had a computer	2.9%
If I had a bank account	2.7%
If I had a smartphone	1.3%
Other	6.1%

Source: Inter-American Dialogue, Survey of Latin American and Caribbean Migrants in the United States, 2016.

Among those that have tried mobile transfers but not remittances, the main barriers for doing so are related to the perception that they are not secure or that it is difficult to register.

**Table 6: Reasons for Using Mobile Transfers for Payments But Not Mobile Remittances, 2016 Survey Results**

Why Mobile Transfers But Not Remittances	
The price is too high	5.6%
Difficult to register	10.3%
They don't offer it on the payment platform I use	0.9%
It seems insecure	12.1%
The requirements are too complicated	4.7%
I have never tried it	51.4%
Other	15.0%

Source: Inter-American Dialogue, Survey of Latin American and Caribbean Migrants in the United States, 2016.

According to a study by the Board of Governors of the Federal Reserve System,<sup>13</sup> 3% of respondents have used mobile phones for sending international remittances. This number is higher than the World Bank average for high income countries, suggesting perhaps a greater willingness to try cross-border mobile technologies among those living in the United States.

The study also tried to measure interest in using these methods in the future. It indicates that among potential users of mobile payments, 4% would be interested sending international remittances.<sup>14</sup> Overall, the number is low relative to all possible cross-border remittance senders.

<sup>13</sup> The study was conducted in 2015 and carried out among a nationally representative probability based sample in the U.S. For more detail, see <https://www.federalreserve.gov/econresdata/consumers-and-mobile-financial-services-report-201503.pdf>

<sup>14</sup> Question used: Activities you would be interested in doing if concerns about mobile payments were addressed.

### As mode of conclusion

This article shows that internet-based transfers, predominantly through the lens of cross-border mobile payments, are growing in popularity among financial service providers, including remittance companies.

Still, the overall figures continue to be low. Whether from the perspective of transactions performed by service providers (9%) or from the perspective usage among migrants (7%), the volume and market share is low.

Internet-based options, however, are key to both promoting financial inclusion and increasing revenue performance. The challenge today is not to improve technologies but to further penetrate use among consumers. Solving this challenge is crucial because these kinds of internet based of accounts, regardless of the vehicle and the issuer (bank or non-bank financial entity), represent a valuable revenue proposition to businesses and a powerful tool for consumers.

These products, which can hold funds or connect to accounts, are a kind of financial gateway that is currently underutilized. One reason may be that the operational readiness of internet-based fund systems is still uneven, particularly among users and merchants due to lack of a financial integration.

Our research has shown that choosing to use a value-added financial product depends on certain determinants: disposable income, savings, knowledge, and access to institutions.<sup>15</sup> While some people may have access, they may lack awareness, disposable income or liquid assets. Moreover, at the micro level, consumers may not be fully integrated into the ecosystem of financial transfers, and many merchants servicing this clientele, including so-called “Mom and Pop” businesses, may not be integrated into the system either. Finally, and as the table below shows, migrants and their families tend to be financially vulnerable, and often lack assets and/or income.

**Table 8: Migrant financial vulnerability**

Place of residence	Precarious (%)	Vulnerable (%)	Borderline (%)	Capable (%)
	Meets none of the requirements: Income is at or below average Does not save or invest Does not own a formal savings account	Meets one of the requirements: May have above average income May save or invest May have a formal savings account	Meets two of the requirements: May have above average income May save or invest May have a formal savings account	Meets all of the requirements: Has an above average income Saves or invests Has a formal savings account
Hong Kong	29.70	35.60	31.40	3.30
Madrid	19.70	45.40	28.70	6.20
San Jose	74.80	21.90	2.70	0.50
Washington, DC	22.30	33.70	30.70	13.40
Total	39.30	34.10	21.70	4.90

Source: Orozco, Manuel. Women and Financial inclusion: Policy Options and strategies for remittance service providers. Forthcoming, 2017

<sup>15</sup> Orozco, Manuel. Orozco, Burgess and Ascoli, *Is there a match among migrants, remittances and technology?*, Washington DC, Inter-American Dialogue, September 2010.

**Table 9: Remittance recipient financial vulnerability**

	Female			Male		
	Financially vulnerable	Middle/Borderline	Financially strong	Financially vulnerable	Middle/Borderline	Financially strong
Georgia	78%	22%	0%	84%	16%	0%
Azerbaijan	59%	41%	0%	59%	41%	0%
Paraguay	43%	49%	8%	41%	49%	10%
Guatemala	33%	69%	2%	35%	64%	1%
Nicaragua	55%	40%	6%	54%	38%	9%
Tajikistan	62%	36%	2%	70%	29%	1%
Kyrgyzstan	54%	44%	2%	62%	36%	2%
Armenia	37%	58%	5%	45%	51%	4%
Mexico	50%	48%	2%	62%	36%	2%
Uzbekistan	48%	49%	3%	47%	50%	3%
Moldova	26%	71%	3%	36%	62%	3%
El Salvador	25%	57%	19%	27%	58%	15%
<b>Total</b>	<b>44%</b>	<b>48%</b>	<b>9%</b>	<b>55%</b>	<b>40%</b>	<b>5%</b>

Source: Orozco, Manuel. Women and Financial inclusion: Policy Options and strategies for remittance service providers. Forthcoming, 2017

Finally, the financial services industry is plagued by uneven performance. In some cases, intermediaries face regulatory and banking challenges to operate. In others, merchants that serve consumers on the receiving end are not fully integrated into the financial system.

Altogether, these factors can help to explain the low usage of internet-based funds. The challenge lies in identifying policy solutions that allow the industry as well as consumers to take a step forward, engaging with new technologies that may have positive impacts for financial inclusion.

### Financial Services Ecosystem Operational Readiness...

Operational Readiness	CONSUMER	BANK	TECHNOLOGY	REGULATOR	MERCHANT	PEER
	FINANCIAL SERVICE PROVIDER					
HIGH			√			
MEDIUM		√↓		√↓		
LOW	√↑				√↑	√↑