The Advancement of Fintech in the Emerging Financial Market Sectors: Impact of Fintech Adoption on Remittances

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Abstract

The article is exploring how FinTech is changing the remittance sector in emerging markets. Remittances are an essential source of income for many households in these markets, and FinTech is making it easier, faster, and cheaper to send and receive money. This is essential for promoting financial inclusion, which is a critical factor in reducing poverty and increasing economic growth.

The study focuses on three areas: lowering the cost of remittances, expanding financial inclusion, and encouraging FinTech adoption. To do this, the research examines six mini-cases from regions that receive high volumes of remittances. The cases consider how the adoption of FinTech affects remittance costs and financial inclusion, taking into account factors like regulatory environments, infrastructure, compliance requirements, and the role of financial intermediaries.

The study finds that FinTech solutions must adapt to the existing infrastructure, and regulators need to foster innovation without stifling it. Moreover, traditional financial institutions have a role to play in the FinTech ecosystem, as they can partner with FinTech firms to provide financial services to the unbanked populations.

Overall, the article highlights the impact of FinTech on the remittance industry, providing faster and less expensive solutions that promote financial inclusion in emerging markets

Keywords: Emerging Markets, Fintech, Money Transfer Operators, Payment Service Providers, Remittances.

Introduction

According to the International Organization for Migration (IOM), millions of people from developing countries migrate to developed regions in search of better economic opportunities and a higher standard of living. In 2019, there were 272 million international migrants, with the majority residing in Asia, Europe, and North America. Factors such as violence, poor economic conditions, natural disasters, political instability, and conflict contribute to annual increases in migration. In 2018, migrant workers sent USD 689 billion to their home nations, with the majority going to developing countries. The top recipients of remittances are developing nations, while the top senders are either developed nations or have high oil and gas industry incomes.

The high cost of remittance is a significant issue faced by migrants and their families, with the average global remittance cost being 6.38 percent of the principal amount, according to a World Bank report. Both the sender and the recipient are financially burdened by the high cost of remittance, with the recipient receiving less benefit from their overseas family affiliates' hard work (Ahmed, Mughal, & Martinez-Zarzoso, 2021). Despite a 54% increase in the total amount of remittances since 2010, the average cost of remittances has only decreased by 3.29% over the course of a decade, according to data from The World Bank (2021). It is important to note that the universal normal rate of remittances was 9.67% in 2009, and with the decrease in cost, it remains a considerable expense. The broadly used medium for remittance is MTOs and banks, despite their high costs.

Infrastructure and regulatory environment play an essential role in increasing the adoption of FinTech, which can help decrease the cost of remittances. According to The World Bank (2021), mobile operators offer the most affordable remittance services, with a typical price of 3.12% of the total amount sent. M-PESA and G-CASH utilized the telecom infrastructure to permit their amenities in Kenya and the Philippines,

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respectively. Adoption is encouraged when multiple services are provided in one location. The combination of FinTech with other digital payment services has helped increase FinTech adoption in Mexico, where it is limited due to the country's cash-based culture. Paytm in India advocated for the use of mobile wallets to integrate international remittances, and the adoption of Paytm's remittance services increased as a result. integrate international remittances, and the adoption of Paytm's remittance services increased as a result.

FinTech Ecosystem

The FinTech ecology is made up of a variety of niche players that promote financial invention. Startups focus on a variety of areas, including remittances, insurance, payment services, retail investing, digital wallets, personal banking, online banking, and crowdfunding. Niche players rely on keystone players to add value and stand out in the market. They use keystone capabilities to provide their specialized services, and without these keystone players, the ecology would catastrophe. Underpinning companies provide a platform that connects participants on a large scale, while niche players add value to the ecosystem. For example, in open banking, independent developers use APIs to access client data from banks and offer extra amenities to customers (Rong et al., 2014).

Figure 1: FinTech Ecosystem

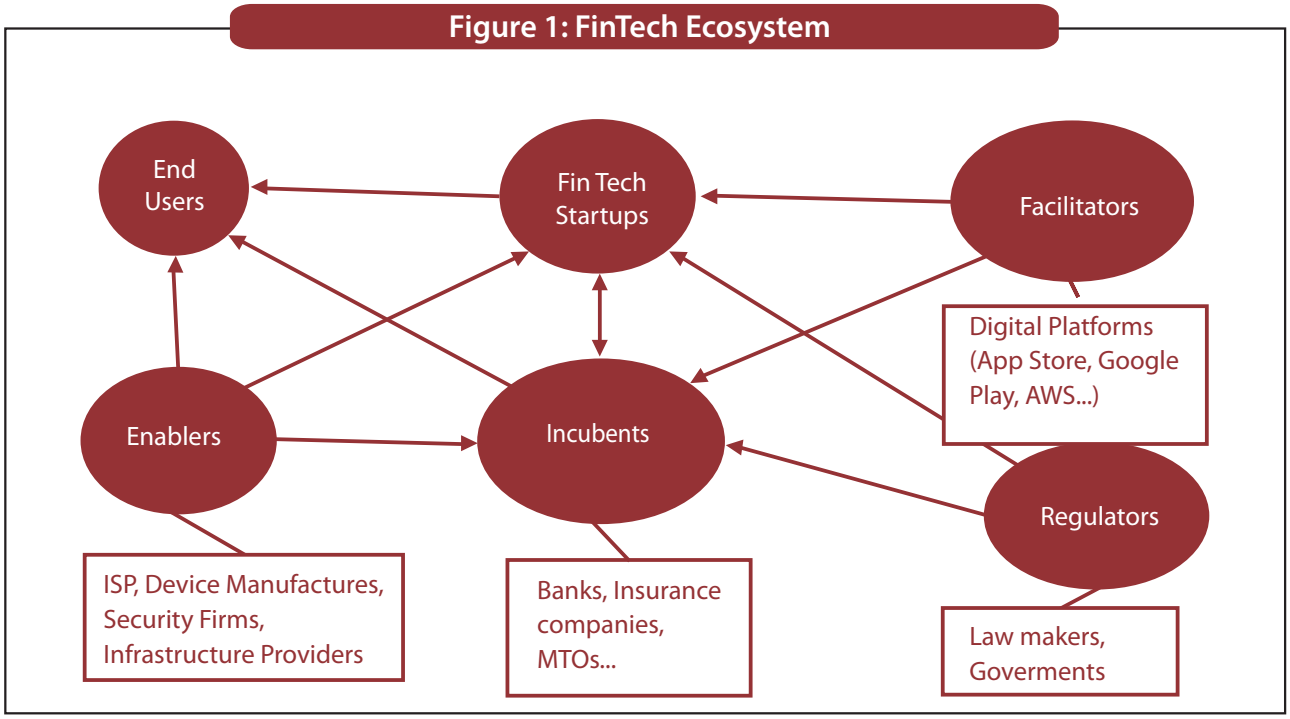


Figure 1 finTech Ecosystem

The FinTech ecosystem is made up of six distinct groups: end users, traditional financial institutions, FinTech startups, facilitators, investors, and regulators. End users are the beneficiaries of the ecosystem's value creation. Traditional financial institutions are the primary providers of financial services and are essential for the ecosystem's proper functioning. FinTech startups bring financial innovations to the market. Facilitators offer a platform for ecosystem participants to showcase their value. Investors provide the capital that is needed to fuel the growth of the ecosystem. Regulators are responsible for ensuring that the ecosystem operates safely and soundly.

Challenges and Trends in Developing Markets Related to Fintech

A World Bank account from 2017 stated that around 1.7 billion adults worldwide, predominantly residing in developing nations, lack access to financial organizations or mobile currency providers (World Bank, 2017). This exclusion from traditional financial services can be attributed to various factors such as high account fees, remote locations, lack of funds, insufficient documentation, and a general lack of trust. However, the increasing access to the internet and the rising use of smartphones in evolving marketplaces are promoting the adoption of FinTech solutions, with adult mobile phone ownership rates reaching around 83% in emerging economies (Seeh, 2021). With the expected continuous rise in smartphone ownership, expanding financial inclusion through FinTech is considered a viable strategy.

The development of FinTech varies among different countries, depending on their level of infrastructure

development, FinTech investments, digitalization, regulatory barriers and. For instance, FinTech integration and development are considerably higher in some emerging markets than in others. China and India are examples of major Asian emerging markets where the FinTech sector is sophisticated and well-integrated, with numerous FinTech firms providing digital financial services. This growth can be attributed to a rising middle class, stable macroeconomic fundamentals, an increasing demand for fast and regulatory support, affordable digital services, and incumbents' inclination to partner with FinTech firms (Alexander, Shi, & Solomon, 2017).

Alexander, Shi, & Solomon (2017) reported that M-PESA, a major money transfer company in Africa, faced challenges entering the South African market due to strict regulations on digital wallets and low mobile network subscription rates. Customers prefer to use reliable and secure financial services. If digital payments are not dependable due to network outages or technical issues, people may be hesitant to adopt them (Demirgüç-Kunt, Klapper, Singer, Ansar, & Hess, 2017).

In line with Catalyst Fund and Briter Bridges (2021), the FinTech industry is gaining increasing attention from international firms, particularly in emerging markets. Year after year, FinTech investments in these markets continue to grow. Some prominent FinTech deals in emerging markets over the last five years include Branch, WorldRemit, OPay, and MoneyTap. Across geographical boundaries, the industry has received billions of dollars in investments in the last five years. The article examines the amount of FinTech investments in South Asia, Africa, and Latin America which are 3 emerging regions, over the past 5 years.

Figure 2: FinTech funding by region over the last 5 years

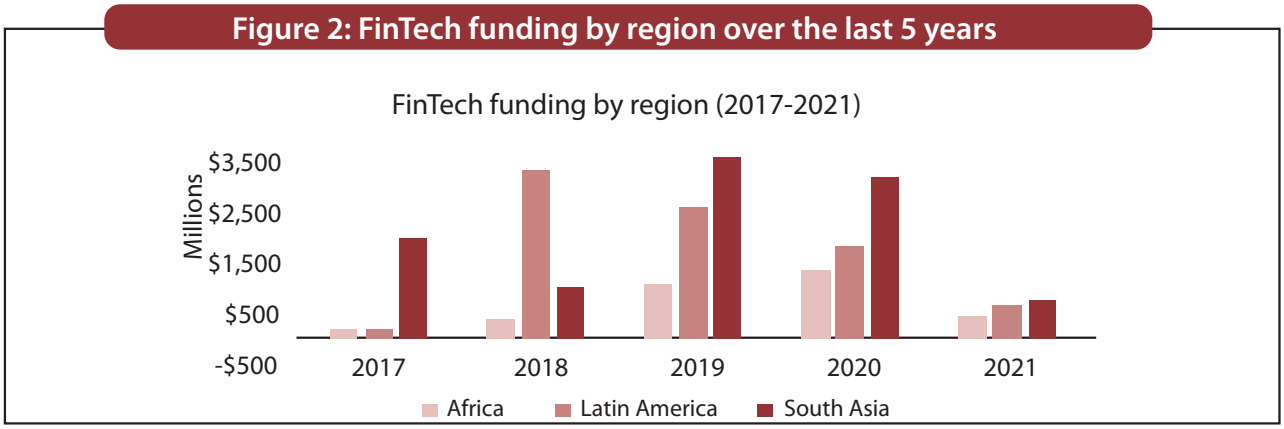


Figure 2 finTech Funding by region over the last 5 years, Source: Adapted from: Catalyst Fund & Briter Bridges (2021)

Review of Literature

Alaassar et al (2023) defines fintech as 'technology-enabled innovation in financial services that could result in new business models, applications, processes or products with an associated material effect on the provision of financial services'. Similarly, Dhar & Stein (2017) define FinTech as technological innovations that allow for business models that can enable disintermediation, change the way value is created and delivered in the market, address concerns related to privacy, regulation, and law execution, provide new avenues for invention, and offer openings for an all-encompassing growth. Alexander, Shi, & Solomon, (2017) talks about the growth of FinTech in Asian nations is aided by stable macroeconomic fundamentals, a growing middle class, rising demand for quick and inexpensive digital services, the support of regulators, and incumbents' willingness to collaborate with FinTech companies. Gomber et at (2017) talks about digital financial inclusion and mobile money. He investigates how mobile money can impact on the poverty and welfare measures in developing countries.

Several studies have been done on the remittances. Ratha (2018), explains that remittances refer to the transfer of cash or goods by foreign workers to support their families in their home country. FinTech solutions include digital payment service areas for digital currencies, a cashless society for instant mobile banking dealings, remittance services for international money transfers, and insurance services, among others. However, this paper focuses solely on the financial subsector of remittances. Martina (2023) explores the role of digital financial services for migrants to send remittances. The findings of the study shows that digital remittance channels are often superior in terms of service-related features. However, the choice to use a specific transfer channel might be restricted by the lack of physical and technological availability of providers, means, and technological illiteracy. A study on the mode chosen for remittances was done by Meek (2018) where he examines that the financial sector has undergone a transformation over time with the overview of SWIFT, digital wallets, mobile banking, and other innovations. SWIFT was established in 1973 to provide a global method for money transfers

and has since become a secure network for banks and other financial institutions. Despite banks being the main players in global transactions, money transmission companies like MoneyGram and Western Union became the primary means of remittance due to their lower costs. Online payment methods like PayPal made it easy and affordable to send money quickly. Nowadays, mobile operators also provide remittance services.

There are studies on the factors influencing fintech adoption and the implementation. Ng, Kauffman, Griffin, & Hedman, (2021) says diverse factors influence the adoption and implementation of FinTech solutions. He uses the 3D outline for cashless expenditures to remittances to explain these factors. Digitalization of the local application environment, novel technology solutions, and the development of national infrastructure are the three characteristics. Patricia (2023) examined the determinants of remittances in El Salvador, focusing on the level of digitalisation in households. Findings of the study shows that determinants of remittances are not everlasting and are affected by social and economic changes.

Relevance of Newly Vulnerable Market Theory

It is difficult to defend NVMs in their second dimension. According to AfricaInvest (2016), technological shifts in the financial sector are frequently viewed as posing a risk to established players like banks and MTOs in emerging markets. Innovations in fintech shake up the market and force established businesses to rethink how they do business in several areas. Due to their outdated systems and outdated technologies, incumbents frequently find it difficult to immediately replicate the FinTech innovators' strategy when challengers enter new markets.

(Amit & Zott, 2012) says innovations in business models that alter how value is delivered to customers are among the FinTech innovations in the remittance sector. Competitors may find it hard to duplicate a completely novel activity system, in contrast to new product and process innovations. As a result, emerging markets are frequently challenging to defend.

Seeh (2021) argues that these reforms have made it easier for businesses to operate in the financial services sector in emerging markets. This has led to an increase in the volume of international transactions in these markets. However, it is important to note that the impact of these reforms will vary from country to country. A case-by-case analysis is needed to understand the full impact of these reforms on NVM.

Transformation, Disruption, and Innovation in the Remittance Market

According to Seeh (2021), banks have traditionally been the primary means of conducting international wire transfers, with payment instructions sent through a secure network like SWIFT to correspondent banks for settlement between the two parties. However, this process can take several days, and banks generate revenue by charging fees for both the remittance and foreign exchange services. Despite this, the cross-border payments market has been dominated by a few large correspondent banks, leading to issues like high transaction costs, lengthy settlement times, and limited accessibility. To address these problems, new players in the market are offering innovative solutions that challenge traditional intermediaries.

As Seeh (2021) notes, these players aim to eliminate the need for intermediaries by allowing transfers directly to mobile money accounts. Additionally, the use of mobile devices for the transaction process is reshaping the industry by providing greater accessibility and creating new business models. With these developments, the remittance market is undergoing a significant transformation that promises to benefit consumers and drive greater competition.

The Role of Network Effects

According to (Seeh, 2021), network effects play a crucial role in the success of remittance platforms, as they enhance the value of the platform for its users and promote adoption. The presence of other users and compatible products demonstrates the impact of network effects on the adoption of FinTech solutions, as it creates more worth for users in terms of speed, cost, and ease of use.

Research Gap

Though a lot of studies can be found in the area of fintech and remittances, to the best of our knowledge, very few studies can be found on the role of fintech in remittance within the context of the chosen six countries. Hence through this study, the authors attempt to fill this gap.

Research Objectives

- To analyze if FinTech solutions can reduce the remittances-cost
- To examine the adoption of FinTech services in selected segments
- To understand the contribution of FinTech in the financial inclusion initiatives of selected six countries

Research Methodology

The article uses a theoretical analysis methodology to examine the impact of FinTech adoption on economic development, financial inclusion, and transaction cost reduction. The article first develops a theoretical

framework for understanding the impact of FinTech adoption. The article then uses qualitative and quantitative observations in case countries to test the theoretical framework. The article concludes by discussing the implications of the findings for policymakers and businesses. According to Saunders, Lewis, and Thornhill (2015), methods refer to the strategies and techniques employed to gather and analyze data to address research questions. This includes the type of data used (primary or secondary), the techniques employed (qualitative or quantitative), and whether an inductive or deductive approach was used. Methods serve as the tools and components used to investigate research questions. The article aims to understand remittances in emerging markets by analyzing secondary data through qualitative and quantitative research methods. A literature review is conducted to gather relevant data for testing questions and conducting further research. The article does not rely on a single data area or method but explores different approaches to address the research questions.

Data Analysis and Interpretation

It utilizes mini-cases to analyze the remittance services provided by FinTech companies in Central America, Africa, and South Asia, identifying general trends and patterns. The analysis is guided by theories and supported by evidence, providing valuable insights into the utilization of FinTech in emerging market remittance. The article uses case studies to explore remittance cost, FinTech adoption, and financial inclusion, considering factors like technology, infrastructure, and regulations. The research process involves developing hypotheses, analyzing case data, and applying theories such as the newly vulnerable market theory, network effect theory, and theory of innovation. This analysis provides valuable insights into the remittance and FinTech industries.

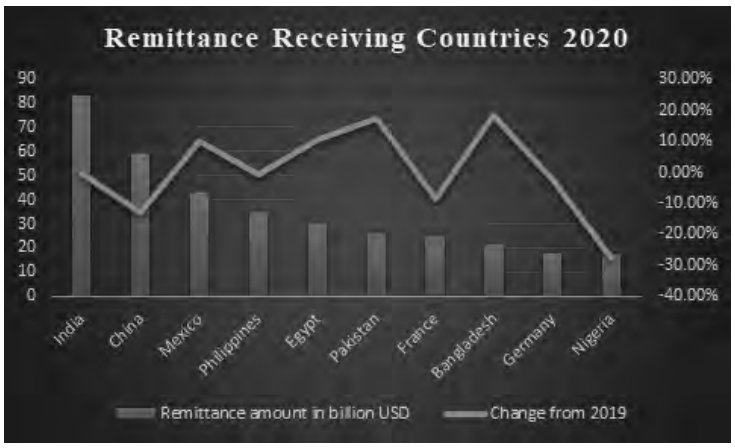
The article focuses on the adoption of remittance FinTech solutions in six emerging market countries in Latin America, Africa, and Asia. The analysis includes the assessment and comparison of the level of digitalization, infrastructure growth, governing environment, and FinTech investment in each country.

Table 1: Top remittance-receiving countries in the year 2020 (billion USD)

Country	Remittance (Amt.in billion $)	Change (2019)
Mexico	42.9	+9.9%
India	83.1	-0.2%
Nigeria	17.2	-27.7%
Philippines	34.9	-0.7%
Germany	17.9	-2.0%
Pakistan	26.1	+17.4%
Bangladesh	21.8	+18.4%
France	24.5	-8.8%
Egypt	29.6	+10.5%
China	59.2	-13.0%

Source: Adapted from Statista

Figure 3: Remittance Receiving Countries 2020



India

India received USD 83.149 billion in remittances in 2020, making it the largest recipient globally. The cost of sending money to India has reduced over the past decade, but it still stands at 5.4% in 2020. India ranks 120th globally in terms of ICT reception and 70th in terms of infrastructure development. While a large portion of the population has access to electricity and mobile phone subscriptions, internet usage among adults is relatively low at 34.5%. Smartphone ownership stands at 54%, and bank account penetration is over 80% among adults. However, the value of the local currency, INR, has decreased from around 45 INR per USD in 2011 to approximately 73 INR per USD in 2021.

India is the world's largest recipient of remittances, with a market size of $87 billion in 2021. This large volume of remittances attracts a lot of traditional and FinTech businesses. India's FinTech industry is one of the world's fastest-growing markets, with billions of dollars in investment every year. FinTech companies and traditional financial institutions collaborate to provide digital financial services. The government supports FinTech and remittance activities by implementing policies that recognize their value to the economy. India's remittance and FinTech sectors have several advantages, including few intermediaries, declining currency value, limited infrastructure development, favorable regulatory environment, increasing investment in FinTech, high mobile penetration rates, and advanced technological solutions.

Mexico

Mexico is the third largest recipient of remittances globally, with an expected amount of $42.88 billion in 2020. The average cost of sending money to Mexico in 2020 is 4.18%, which is lower than 5.966% in 2011 but is higher than the SDG goal. Mexico has a high level of digitalization, with 54.4% of Mexican households having smartphones and 85.7% having mobile phones. However, over half of Mexico's adult population does not have a bank account, relying heavily on cash transactions. The value of the local currency (MXN) has decreased over the past decade, and the exchange rate has gone from approximately 14 MXN per USD in 2011 to approximately 20 MXN per USD in 2021. The regulatory environment for FinTech in Mexico is favorable, with the government supporting the growth of the industry.

The Mexican government is actively promoting innovation in the financial sector to promote fairness and competition. The country's financial industry is regulated by the Bank of Mexico, and there are strict licensing and reporting requirements in place to protect consumers. However, certain financial services are only available to banks, and this restricts the development of fintech. To encourage innovation, the regulatory barriers to entry for fintech companies must be lowered.

Philippines

The Philippines received USD 34.913 billion in remittances from Filipinos living abroad in 2020, which accounted for 9.658% of the country's Gross Domestic Product. The average cost of sending money to the Philippines decreased from 6.158% in 2011 to 4.568% in 2020, but it is still higher than the SDG goal. The Philippines ranks 88th in the world for ICT adoption and 96th in infrastructure development. Despite the high level of mobile phone penetration and internet usage, the level of digitalization and infrastructure expansion needs improvement. The exchange rate between the Philippine peso and the US dollar has decreased slightly over the past decade.

In the Philippines, both local and foreign players in the FinTech market aid in the smooth flow of remittances. This market is attracting investments due to the country's high remittance volume, increasing infrastructure, and potential for financial inclusion. The Philippines has a high mobile phone usage rate, making it an ideal platform for financial services. Additionally, some government agencies are utilizing FinTech to improve the competence and adoption of services. The indicators of the Philippines' remittance and fintech markets include the presence of numerous mediators, to some extent declining currency value, low acquiescence requirements, a favorable regulatory environment, limited adoption of information and communication technology, increasing investments in FinTech, high mobile phone penetration, and the use of low-tech solutions.

Egypt

Egypt is Africa's largest recipient of remittances. The country received USD 29.603 billion in remittances in 2020, or 8.154% of its yearly Gross Domestic Product, according to the World Bank (2020). According to statistics, the average cost of sending money overseas increased from 4.152% in 2011 to 4.925% in 2020. With a score of 40.6, Egypt ranked 106th globally in ICT adoption in 2019, and with a score of 59.1, it ranked 44th globally. With a score of 79.4, 99.8 percent of the populace has admittance to electricity, and 469.9 percent of adults use the internet. Smartphones are used by more than half of the population. 67% of the population lacks access to a bank account, according to statistics. The degree of digitalization is deficient. The nation's infrastructure is developing well, but it is not sufficiently digitalized.

The Egyptian government is introducing reforms to promote financial inclusion and encourage the growth of the FinTech sector. The Central Bank of

Egypt regulates the financial market, and some areas of FinTech are either over-regulated or unregulated. However, recent reforms have made it possible for FinTech firms to acquire licenses to offer banking services. Financial institutions are required to adhere to strict security, reporting, and KYC guidelines. The way remittances are received in the country is influenced by strict government controls on foreign currency. The indicators for Egypt's remittance and FinTech markets include a declining currency value, low infrastructure development, a high rate of mobile penetration, a small number of intermediaries, a favorable regulatory environment, high compliance requirements, high-tech solutions, increasing investment in FinTech, and low ICT adoption.

Nigeria

According to the 2020 report from the Nigeria World Bank, Nigeria received 17. 208 billion USD in remittances in 2020, which added 3.981% of the country's annual Gross Domestic Product. According to statistics, the typical cost of sending money to Nigeria in 2020 will be about 7%, down from 10.11 percent a few years ago. The present cost of remittances exceeds the SDG target. Nigeria ranked 118th globally for ICT acceptance (with a score of 33.4), 130th for infrastructure development (with a score of 31.6%), 59.8% of the populace has access to electricity (with a score of 88.2), and 42% of adults use the internet. 2019, Schwab).

Nigeria has a large unbanked population and is one of the most highly unbanked countries in Africa. The Nigerian government is taking steps to promote financial inclusion and digital payments through regulatory updates and partnerships between traditional financial institutions and FinTech companies. Although the Nigerian FinTech market is generally well-regulated, laws regarding digital ledger technology and cryptocurrency remain unclear. The main areas of interest for investors are digital banks, mobile money, and payments.

Kenya

As per the WB (2020), Kenya got USD 3.1 billion in the settlement in 2020, which records for 3.1% of the yearly Gross Domestic Product. According to statistics, the basic cost of sending money to Kenya in 2020 was 8.4%, a significant decrease from 13.1% a decade earlier. However, there is a long path ahead in comparison to the SDG goal of bringing the cost of remittances below 3%. According to Schwab (2019), Kenya has a score of 35.7 for ICT adoption, which places it 116th in the world. It also has a score of 53.6 for infrastructure development, which places it 110th in the world. Only 17.5% of adults in the country use the internet, 73.4% of the populace has access to electricity, and 80.3% of the inhabitants subscribe to mobile cellular phones. Over 70% of individuals have access to financial amenities.

The Kenyan Central Bank oversees the financial market and has introduced laws to regulate the digital financial market without restricting its growth. The supervisory body encourages innovation and makes it easy to enter the financial market, resulting in more people having access to financial services. Due to the favorable technological environment, developed ecosystem, and M-PESA's success, investors are becoming involved in the market, and Kenya is becoming a FinTech hub.

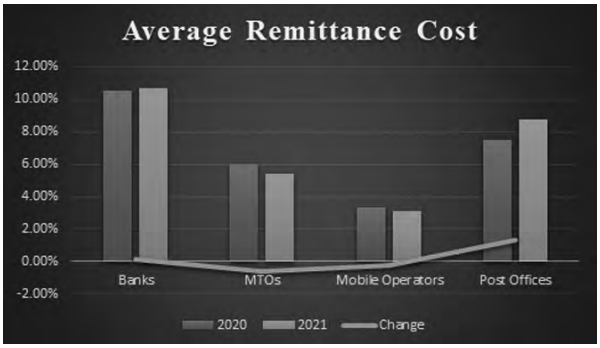
The term "remittance" refers to international transfers and transactions carried out through various formal and informal channels. Banks, post offices, mobile operators, and MTOs, are the official streams for remitting money. MTOs and Banks are the channels that are used the most. Throughout the last ten years, the cost of the typical settlement was diminishing for all conventional channels aside from mail depots, due to the declining number of exchanges (The WB, 2021). The basic cost at banks raised slightly in 2021 and the most recent data on the minimum cost of remittances by the remittance service provider (RSP) can be found in the table that follows.

Table 2: Average remittance cost by RSP

Particulars	2020	2021	Change
Banks	10.51%	10.66%	+0.15%
Post Offices	7.49%	8.79%	+1.3%
Mobile Operators	3.37%	3.12%	-0.25%
MTOs	5.99%	5.43%	-0.57%

Source: Adapted from World Bank (2021)

Figure 4: Average Remittance Cost



Findings and Recommendations

The article will summarize the conclusions from 6 countries and investigate the results exhaustively. It will also compare the countries to investigate patterns among cases and focus on the meaning of the variables for one another.

Table 3: Summary of Results

Country	Findings
India	• The costs of remittances are decreasing as FinTech solutions, backed by favorable laws, eliminate intermediaries. • Despite inadequate infrastructure development, the nation has a high adoption rate for FinTech.
Mexico	• Despite having the necessary infrastructure in place, financial inclusion is still low in the country. • The usage of digital channels for financial transactions is limited due to the cultural preference for cash transactions. • Remittance costs in the country remain relatively low even with the utilization of channels other than FinTech.
Philippines	• Despite the limitations in infrastructure development, FinTech companies are gaining acceptance in the market by offering low-tech solutions. • The use of digital remittance solutions is contributing to a decline in remittance costs. • Furthermore, the adoption of FinTech is having a positive impact on the low level of financial inclusion.
Egypt	• The high costs of remittance are attributed to the prevalent use of MTOs and banks. • Increased government attention and investment have led to a surge in FinTech adoption. • Although currently low, financial inclusion is on the rise due to regulatory support.
Nigeria	• Despite increased investment in FinTech, cash and informal channels are still preferred by individuals, resulting in low financial inclusion. • This is due to the high costs related to exchange rates and the involvement of multiple intermediaries • The existing infrastructure is unreliable, further discouraging individuals from using digital channels.
Kenya	• Remittance costs are high due to the involvement of multiple intermediaries. • Despite poor infrastructure development, there is a high adoption rate of FinTech. • M-PESA, a low-tech solution, has greatly contributed to improving financial inclusiveness • Regulators are supportive of initiatives to promote financial inclusion through FinTech.

Through the country mini-cases analysis, the paper talks about the three research questions as follows:

Remittance Costs are Reduced

FinTech companies offer several advantages over traditional remittance service providers, including lower transaction fees, mid-market exchange rates, clear and upfront pricing, multicurrency accounts, faster and cheaper remittance services, accessibility through mobile apps or websites, and lower compliance requirements. This has led to a transformation in the financial sector, as traditional banks and money transfer operators are being forced to lower their prices to compete with FinTech companies.

Adoption of FinTech

Technological solutions are essential to increase FinTech adoption. The development of infrastructure, regulatory environment, and adoption of ICT are crucial factors. Offering multiple services in one location and integration with different digital payment services can boost adoption rates. For Example, the success of G-CASH-Philippines; integration with different digital payment services have been effective-Mexico; Paytm- India promoted mobile wallets for international remittances

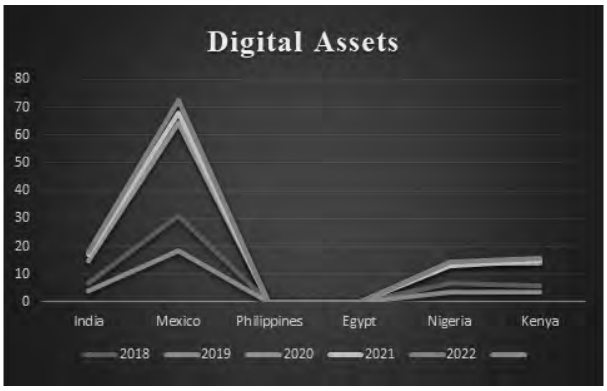
Table 4: Average Transaction Value Per User; Adoption in FinTech

In Millions UDS	2017	2018	2019	2020	2021	2022
India						
Alternative Financing	24,550.00		21,360.00	16,360.00	16,640.00	15,920.00
Digital Assets	6.3	6.49	3.94	14.77	16.95	17.75
Digital Investment	647.4	684.4	751.7	691.4	772.8	819.5
Digital Payments	133	137.8	136.2	163.3	180.1	180.4
Neobanking	2,816.00	3,115.00	3,585.00	3,913.00	4,204.00	4,457.00
Mexico						
Alternative Financing	3,271.00	3,396.00	3,511.00	2,787.00	3,202.00	3,147.00
Digital Assets	29.56	31.09	18.34	64.15	68.06	72.47
Digital Investment	2,802.00	2,632.00	2,542.00	2,174.00	2,362.00	2,302.00
Digital Payments	494.3	618.2	762	829.7	1,072.00	1,109.00
Neobanking	1,887.00	2,084.00	2,311.00	2,277.00	2,630.00	2,726.00
Philippines						
Alternative Financing	16.97	17.99	19.61	13.94	18.13	19.66
Digital Assets	0	0	0	0	0	0
Digital Investment	0.99	1	1.06	0.76	1	1.1
Digital Payments	0.42	0.42	0.42	0.51	0.59	0.6
Neobanking	3.24	3.72	4.41	5.26	5.96	6.28
Egypt						
Alternative Financing	220.7	165.6	145.2	132.4	119.9	96.05
Digital Assets	0	0	0	0	0	0
Digital Investment	0.56	0.5	0.53	0.65	0.81	0.83
Digital Payments	0.22	0.18	0.18	0.2	0.25	0.24
Neobanking	5.59	5.55	6.53	8.16	9.38	9.83

Nigeria						
Alternative Financing	14,330.00	14,380.00	13,310.00	11,000.00	9,804.00	9,094.00
Digital Assets	6.26	6.58	3.69	13.75	12.86	14.17
Digital Investment	713.7	752.2	742.9	677.1	645.5	643.6
Digital Payments	145.5	145.1	134.1	129.3	135.3	133.6
Neobanking	1,042.00	1,370.00	1,599.00	1,727.00	1,807.00	2,000.00
Kenya						
Alternative Financing	16,730.00	16,490.00	15,580.00	11,980.00	11,620.00	10,270.00
Digital Assets	5	5.62	3.43	13.87	14.91	15.62
Digital Investment	1,116.00	1,204.00	1,258.00	1,100.00	1,190.00	1,230.00
Digital Payments	100.1	151.8	212.8	280.2	342.4	311.7
Neobanking	1,320.00	1,619.00	1,875.00	2,059.00	2,247.00	2,318.00

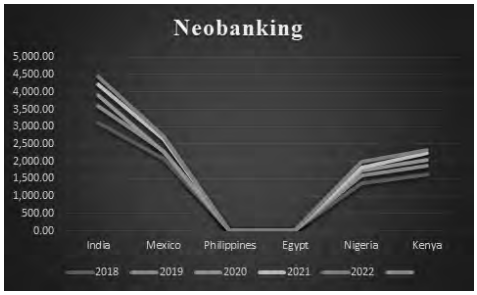
Figure 5: Alternative Financing, Digital Investment, Digital Assets Neobanking, and, Digital Payments











Financial Inclusion

FinTech can enhance financial inclusion when supported by infrastructure development and regulation. The rise in mobile phone penetration has provided opportunities for FinTech companies to reach countries where mobile phones are widely used for accessing financial services. However, the accessibility of high-tech FinTech solutions on common devices remains a challenge. Low-tech FinTech solutions that do not require smartphones for basic services can significantly increase financial inclusion. For example, in Kenya, the adoption of FinTech solutions like M-PESA has led to a substantial increase in access to basic financial services. From 2006 to the present, the percentage of the population with access to basic financial facilities has risen from 26% to 83% (Chitavi, Cohen, & Hagist, 2021).

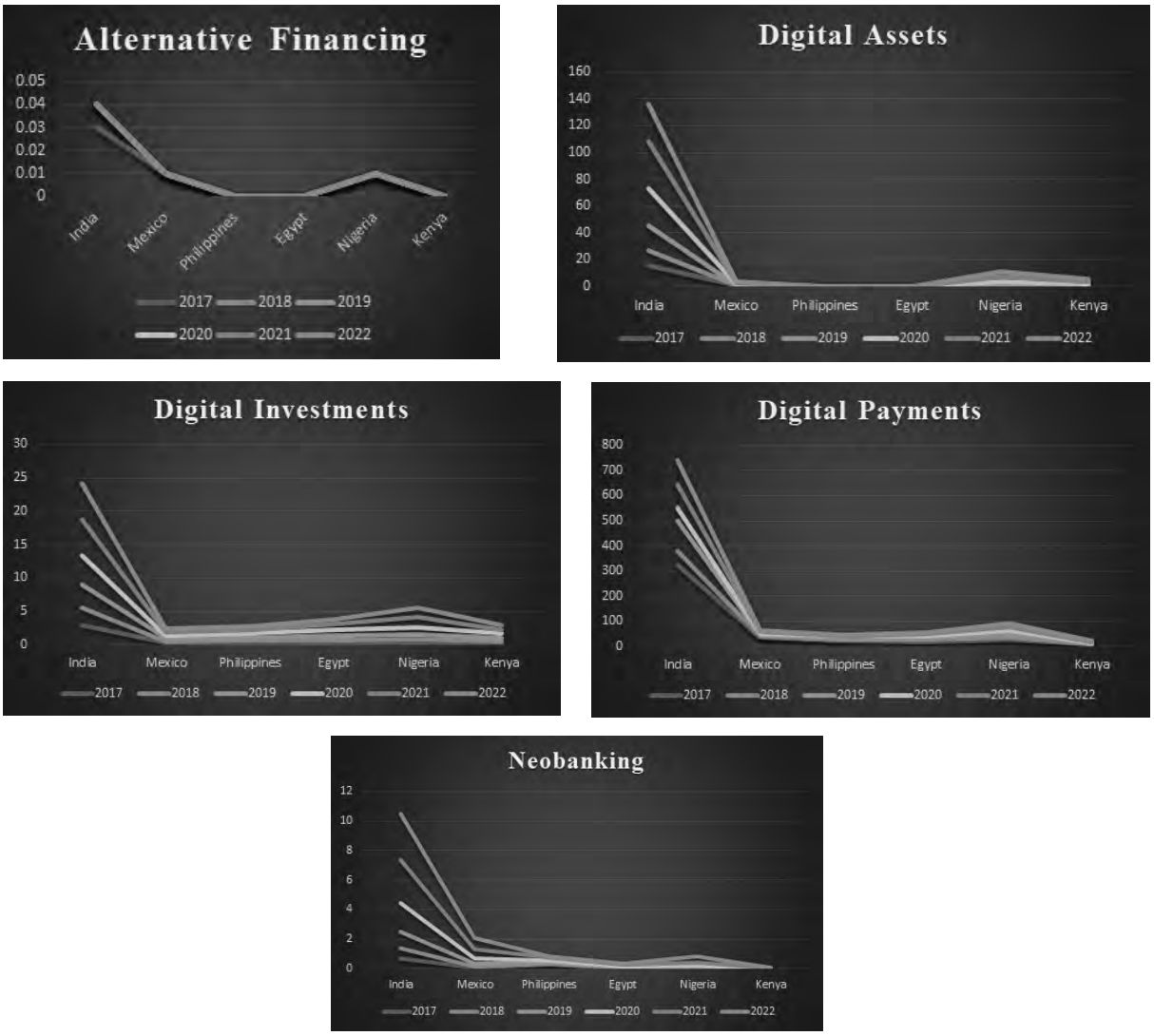
Remittances from developed countries to emerging markets have a significant impact on recipients' development, benefiting both individuals and the overall economy. Lowering the cost of remittances through FinTech solutions is crucial for fostering financial inclusiveness, reducing transfer costs, and increasing the overall income of receiving households (Mughal, Ahmed, & Martinez-Zarzoso, 2021).

Table 5: User by Segment; Financial Inclusion

In Millions UDS	2017	2018	2019	2020	2021	2022
India						
Alternative Financing	0.03	0.04	0.04	0.04	0.04	0.04
Digital Assets	15.63	27.14	45.75	73.03	108.5	136.09
Digital Investment	2.98	5.48	9.03	13.44	18.77	24.16
Digital Payments	321.62	377.94	498.11	548.69	644.1	739.55
Neo banking	0.72	1.35	2.5	4.41	7.33	10.47
Mexico						
Alternative Financing	0.01	0.01	0.01	0.01	0.01	0.01
Digital Assets	0.46	0.73	1.13	1.67	2.75	3.37
Digital Investment	0.32	0.57	0.96	1.44	1.97	2.37
Digital Payments	37.12	41.41	46.6	50.76	57.58	64.12
Neo banking	0.08	0.16	0.34	0.7	1.33	2.1
Philippines						
Alternative Financing	0	0	0	0	0	0
Digital Assets	0	0	0	0	0	0
Digital Investment	0.31	0.63	1.1	1.68	2.26	2.83
Digital Payments	23.6	28.01	34.65	38.99	43.44	47.43
Neo banking	0.26	0.33	0.44	0.57	0.73	0.83
Egypt						
Alternative Financing	0	0	0	0	0	0
Digital Assets	0	0	0	0	0	0
Digital Investment	0.3	0.69	1.37	2.22	3.03	3.77
Digital Payments	20.02	25.87	34.5	41.4	48.53	55.78
Neo banking	0.02	0.04	0.07	0.13	0.24	0.35

Nigeria						
Alternative Financing	0.01	0.01	0.01	0.01	0.01	0.01
Digital Assets	0.07	0.32	1.2	3.4	7.1	10.66
Digital Investment	0.38	0.8	1.54	2.61	4.07	5.53
Digital Payments	28.82	38.51	52.41	64.72	77.98	90.92
Neo banking	0.01	0.03	0.07	0.18	0.43	0.83
Kenya						
Alternative Financing	0	0	0	0	0	0
Digital Assets	0.05	0.18	0.63	1.74	3.6	5.28
Digital Investment	0.25	0.54	1.03	1.66	2.31	2.92
Digital Payments	8.43	10.55	12.83	15.61	19.05	22.65
Neobanking	0	0.01	0.01	0.02	0.03	0.05

Figure 6: Alternative Financing, Digital Investment, Digital Assets Neobanking, and, Digital Payments



Conclusions

This article provides valuable insights into the relationship between remittance and FinTech in emerging markets, offering guidance for the development of strategies and policies by remittance service providers and governments. By examining the costs of transfers, FinTech adoption, and financial inclusion in these markets, the article identifies the challenges that hinder the implementation of FinTech solutions. One key finding is the importance of considering the difficulties associated with digital remittance solutions when designing future FinTech initiatives.

To address these challenges, the article suggests that FinTech companies should take into account the specific factors that influence FinTech adoption in emerging markets, such as limited access to smartphones, the internet, and electricity. In many cases, low-tech approaches and partnerships can be more effective than relying solely on high-tech digital services. Moreover, integrating remittance services with local payment systems and other relevant services can expedite financial inclusion and the uptake of FinTech in these markets.

While there is a need for innovation and expansion in the FinTech industry, the article cautions against excessive regulation by governments. It emphasizes the importance of striking a balance between strong regulations and compliance requirements and fostering an environment that encourages innovation within the financial sector. The article also suggests that governments play a crucial role in developing national infrastructure for FinTech innovations. By providing reliable financial services and supporting well-established digital solutions, governments can facilitate the adoption of FinTech and contribute to financial inclusion and overall economic growth in emerging markets.

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