

Financial Inclusion in Latin America: Factors for Continuing Development

By Sebastian Galarza, Orange Coast College

Mentor: Erin Gratz

Abstract

Over 50% of the Latin American population is unbanked, making financial inclusion a key factor for society's development. Since 2017, the financial system has been growing, including an additional 11% of the population annually. Therefore, this research will be focused on: What are the most critical factors that have helped financial inclusion increase in Latin American adults in the past five years? To answer this question this study analyzed the key factors that have contributed to the increase in financial inclusion among Latinos adults over the past five years. For this mixed-methods study, I interviewed 10 participants in Latin America. Qualitative data was gathered from the interview transcripts and analyzed thematically. Four World Bank data sets - internet access/bank account holders, GDP per capita/ bank account holders, GDP per capita/ e-banking, Covid-19 / digital payment - were analyzed using exponential regression modeling in python. Findings revealed that technological and social factors have had a significant impact. The preference of Latinos for food delivery services has motivated them to use fintech services. Blockchain has enabled financial inclusion in rural areas by allowing people to access banking services through their mobiles. Key factors include the transparency of fintech over traditional banks, financial products such as checking and saving accounts in the bank account, and fewer annual/transaction fees. Technology is critical to bring people into the financial system having outcomes such as access to education, housing, and transportation.

Key Words: Financial Inclusion, Fintech, Latin America, Inequality

Introduction

Financial inclusion is a subject of growing interest and one of the major socio-economic challenges on the agendas of international institutions, policymakers, central banks, financial institutions, and governments. More than 50% of the Latin American population is unbanked making financial inclusion a key factor for society's development (Banerjee & Newman, 1993). Since 2017, the financial system has grown to include 11% of the population annually (Banerjee & Newman, 1993).

According to the latest World Bank estimates, based on micro-data from surveys, there are still around 1.7 billion people in the world who do not have a bank account (Beck et al., 2007). Global Findex report of 2021 (Demirgüç-Kunt, Asli, et al., 2021) reveals that only around 70% of adults (people aged 15 and above) in the world have at least one bank account in the formal financial system. However, the percentage of individuals with a bank account varies considerably between developed and developing countries. In developing countries, banking penetration rates are far below the average (Beck et al., 2007). In Africa, 20% of adults have a bank account while in Latin America this figure is 55% (Beck et al., 2007). In Peru, only 55.26% of the adult population has a bank account, a figure far below the 87.06% in Chile and more than 83.56% in Brazil (Banerjee & Newman, 1993). Moreover, 7.3% of the bank accounts in Latin America are inactive, meaning that there have not been any deposits or withdrawals in a given month (Banerjee & Newman, 1993). The problem of involuntary financial exclusion requires intervention to address market failures such as asymmetric information, lack of competition in the markets, or insufficient infrastructure (Banerjee & Newman, 1993). These failures make it difficult for certain population groups to use formal financial services.

The relationship between access to financial services and poverty highlights the significance of financial inclusion (Aghion & Bolton, 1997). Vulnerable groups often have a difficult time accessing traditional financial

© *Think You?! The Proceedings of the Bay Honors Research Symposium, 2023. All Rights Reserved.*

services, so they have to rely on irregular income and imperfect financial tools to manage their finances (Aghion and Bolton, 1997). This can be especially challenging for them. According to some authors, the lack of access to financial services can contribute to a cycle of poverty and exacerbate income inequality (Galor & Zeira, 1993). This is because those who do not have access to these services may be unable to invest in their own education, business, or other opportunities that could help them improve their economic standing. As a result, the gap between the wealthy and the less well-off may continue to grow (Allen et al., 2016).

The connection between access to financial services and poverty illustrates the value of financial inclusion. This is because households generally try to optimize their profits, rather than just their income, in order to align their income and consumption needs. In this context, financial services can be helpful in smoothing out consumption patterns. Meanwhile, businesses that aim to maximize their profits can take advantage of external funding at the right times if they have access to credit. All of this highlights the importance of financial inclusion in helping households and enterprises manage their finances and achieve their goals.

Although financial inclusion has become a key issue, there are still only a few theoretical and empirical studies that focus on the factors to continue developing financial inclusion in Latin America (Polloni-Silva et al., 2021). Therefore, in this study, we consider the most relevant factors such as economic, social, political, and technological that we will develop in separate ways to analyze each one deeply (Polloni-Silva et al., 2021).

Literature Review

Financial inclusion broadly refers to the degree of access of households and firms, especially poorer households and small and medium-sized enterprises (SMEs), to appropriate financial services (Correa & Girón, 2019). There are various definitions of financial inclusion in terms of its usage in practice and in research, and important nuances exist. The World Bank defined financial inclusion as “the proportion of individuals and firms that use financial services” (Correa & Girón, 2019). The Consultative Group to Assist the Poor (CGAP) defined it as “a world where everyone can access and effectively use the financial services they need to improve their lives: that does not mean developing separate financial markets for the poor” (Morgan, 2016, p. 68). In 2021, David Velez, the CEO of Nubank, described it as “the action of ensuring that everyone in society has affordable, prompt, and sufficient access to a diverse array of regulated financial products and services, with the aim of increasing their utilization across all population segments” (Colossus, 2021, Ep 41). In summary, financial inclusion encompasses the extent of access to appropriate financial services by various groups, including the economically disadvantaged, and it is defined differently by organizations, scholars, and industry leaders, all with the overarching goal of ensuring equitable access to financial products and services across society.

The Asian Development Bank Institute (ADBI) summarized five strategies for promoting financial inclusion: promotion of inclusion-oriented financial institutions, subsidized funding, development of innovative products and services, development of innovative delivery technologies, and development of innovative systems to enhance access to credit (Yoshino & Morgan, 2016). Technology innovation has played a significant role in increasing financial inclusion in recent years. Digital financial services like mobile and internet banking have made it cost-effective for firms to reach low-income consumers who conduct transactions for small amounts. The success of mobile payment applications such as MPesa or CoralPay in developing countries suggests there is an appetite for mobile services that are adapted to local requirements such as making payments remotely through short message service (SMS) or unstructured supplementary service data (USSD), making micropayments on utility bills using phone credit, and augmenting citizens credit worthiness rating through alternative data. At the other end of the income spectrum, the creation of the Apple Card suggests the likely direction of mobile phone-driven financial services.

This technology-driven transformation of access to financial services has created an appetite for research on the appropriateness of the products on offer. Alternative citizen data sources (such as mobile phone usage,

online shopping, and social media activity) can be collected and analyzed for both commercial and non-commercial decision-making regarding eligibility. Firms have invested heavily in artificial intelligence (AI) and machine learning (ML) technologies to address scalability and complexity in the delivery of financial services in the last decade (Chatterjee, 2020). Nubank is an example of this, where they suggested looking into the value co-creation process for data-driven financial inclusion in order to better understand how data and AI technologies can affect the relationship between financial firms/institutions and consumers. The value-in-interactive creation perspective is used in their data science model to discuss the co-created values of the interactive system environments (including service providers, consumers, data, and technological applications) in the context of financial inclusion. In this conceptual model, the roles of the service provider and the customer are just as significant as the data and technological elements, which are not just implicit premises but also fundamental parts of the value co-creation process. They incorporate four representative financial services (i.e., alternative creditworthiness, customized pricing, financial service automation, and personalized financial management), demonstrating how to integrate customer resources (i.e., data) and provider resources (i.e., technologies) in the transformation of these resources into real value for financial inclusion (i.e., accessibility, affordability, and personalization). Furthermore, they evaluate the validity and effectiveness of the proposed value co-creation model, including financial inclusion assessment and value assessment.

Financial Inclusion and Central Bank Regulations in Latin America

In Latin America, the political policies guiding financial services are important since they determine how economic activities are carried out in the region. The central bank regulations are put in place to ensure economic stability. They also guide trading in the region, therefore, determining the value of the money circulating in any country. Fintech and bank accounts are mainly used to keep and withdraw money; therefore, they are regulated. It is important to note that regulations and policies can vary from country to country and also can change over time. There are several central bank regulations that have helped increase financial inclusion in Latin America and are important to note including microfinance regulations, financial inclusion policies, Know-Your-Customer and Anti-Money Laundering regulations, and credit bureau investigations.

Microfinance Regulations

Many central banks in Latin America have implemented regulations that support the growth of microfinance institutions (MFIs) and other small-scale lending organizations. These regulations often include measures to encourage MFIs to reach out to underserved populations, such as by requiring them to have a certain percentage of their loan portfolio devoted to low-income borrowers (Gershenson et al., 2021).

Financial Inclusion Policies

Central banks in the region have also implemented policies to promote financial inclusion, such as by encouraging the use of digital platforms for financial services, such as mobile banking and e-wallets. These policies also aim to reduce barriers to entry for new players in the financial services market, such as fintech companies, to increase competition and innovation in the market (Gershenson et al., 2021).

Know-Your-Customer (KYC) and Anti-Money Laundering (AML) Regulations

Central banks in Latin America have also implemented regulations to ensure that financial institutions comply with KYC and AML requirements. These regulations aim to prevent money laundering and terrorist financing, while also making it easier for low-income individuals and small businesses to access financial services by reducing the barriers to opening bank accounts and using other financial services (Gershenson et al., 2021).

Credit Bureaus Regulations.

Central banks have also implemented regulations for credit bureaus, which allow financial institutions to access credit history data of their clients, to make more informed decisions when granting loans or credit. This helps to reduce the risk of non-performing loans, and increase access to credit for those who have a good credit history (Gershenson et al., 2021).

Examples of Financial Technology

The use of financial products also helps enterprises to make investment decisions that would be difficult to achieve using only the funds generated by the economic activity itself. Investment or spending needs are not necessarily synchronized with the inflow and outflow of funds generated by the productive process and they may occur at a time when there are insufficient savings available to meet such needs. Dupas and Robinson (2009) show that financial inclusion has a positive impact on productive investment, while a positive and significant relationship has been demonstrated between the use of credit and the growth of enterprises, particularly for smaller companies (Carpenter and Petersen, 2002). In order to better illustrate how technology can generate financial inclusion, two examples are provided to demonstrate how on-demand delivery, credit cards, and customer service play a key role.

Rappi Bank

Technological development plays a key role in financial inclusion (Luz et al., 2022). That is because software is required for any company that provides online financial services to facilitate the work and reach a bigger population (Luz et al., 2022). For instance, all fintech companies provide their services online; therefore, technological innovation plays a key role (Luz et al., 2022). Rappi started as an on-demand delivery company but has grown to offer financial services and materials within a certain area of coverage (Luz et al., 2022). Growth is gradual in every company, but technology enhances development and makes providing more valuable services possible (Luz et al., 2022). It has also grown due to its commitment to providing good customer services, and in the future, it might be a one-stop platform for most financial services (Luz et al., 2022).

Rappi is a Colombian on-demand delivery service that commenced operations in 2015 (Luz et al., 2022). Additionally, it is a payment application that has expanded its offerings to include credit cards in Latin America (Luz et al., 2022). After four years of establishing itself as the leading delivery app, Rappi formulated a strategic approach centered around the key motivators of the Latin American population, with a focus on food (Luz et al., 2022). This strategy proved successful and resulted in Rappi's rapid expansion across Latin America, allowing it to leverage its vast data resources to provide a novel financial service (Luz et al., 2022). According to the company, it launched its first credit card in partnership with Mastercard and a local bank in Colombia in 2019. The card is designed to help its users to make purchases and access credit in a fast and convenient way (Luz et al., 2022).

Rappi's credit card is available to its users in Colombia, Mexico, Chile, Peru, Argentina, and Brazil and allows users to make purchases and access credit without requiring a traditional credit check (Luz et al., 2022). The credit limit on the card is determined by the user's transaction history on the app. Rappi's credit card also offers cashback rewards and discounts on purchases made through the app, and it can be used at any merchant that accepts Mastercard (Luz et al., 2022). The company also claims that their credit card is a way to help its users who do not have access to traditional financial services and credit products (Luz et al., 2022).

Additionally, it is worth mentioning that Rappi's credit card is just one of the services that the company offers in Latin America. It also provides other financial services like the ability to pay bills and to make P2P transactions among its users (Luz et al., 2022).

BanQu

Customer service is important in every business. In most cases, customers prefer to access their services from a place where they can get to know all the information concerning their products to understand the value of everything. Traditional bank accounts have poor customer service whereby they do not get to explain in detail some of the costs that a person has to incur while using it. They also do not make valuable customer information available digitally, thus preventing the customers from the expected clarity. As a result, people may take loans from the same facilities with the expectation of enjoying return benefits, but they end up paying more than expected. On the other hand, fintech provides all the valuable information in a person's online account and is always available to help their customers. The kind of customer service they get from fintech is highly influencing the preference for fintech hence more financial inclusion.

BanQu's digital identity and financial profile platform have the potential to promote social inclusion by providing access to financial services for individuals and groups who have traditionally been excluded from the financial system (Gadnis, 2022). BanQu's technology has shown to promote social inclusion through empowering marginalized groups, providing financial education, creating a digital identity, creating transparency of financial transactions, and providing access to microfinance organizations (Gadnis, 2022).

BanQu's platform offers a multifaceted approach to promoting financial inclusion (Gadnis, 2022). Firstly, it addresses the inclusion of marginalized groups like refugees, migrants, women, and those living in poverty by providing them with a digital identity and financial profile, enabling access to financial services and ultimately improving their quality of life (Gadnis, 2022). Additionally, it plays a crucial role in financial education, imparting valuable knowledge about financial management and planning, thereby promoting financial literacy (Gadnis, 2022). Furthermore, its blockchain-based system ensures transparency and reduces fraud, enhancing trust in the financial system (Gadnis, 2022). Moreover, BanQu facilitates the creation of digital identities for individuals, particularly beneficial for those lacking formal identification (Gadnis, 2022). Lastly, by connecting individuals with micro-finance and small-scale lending organizations, it empowers low-income individuals and small businesses, fostering both social inclusion and economic development (Gadnis, 2022).

The literature review provides a comprehensive overview of financial inclusion, encompassing various definitions and approaches in academia and industry. It emphasizes the transformative role of technology-driven innovations, such as digital financial services, in enhancing access to financial products, particularly for underserved populations. Despite these insights, a notable research gap exists concerning the specific impact of technology and customer service on financial inclusion. This study aims to address this gap by analyzing the experience of users of fintech and data sets that highlight the contributions of technology-driven platforms, like Rappi and BanQu, to financial inclusion in Latin America.

Methodology

Since 2017, the financial system has been growing moderately, including an additional 11% of the population annually (Banerjee & Newman, 1993). From this, along with my experience as a Peruvian citizen, the following research question arose: What are the most critical factors that have helped financial inclusion increase in Latin American adults in the past five years? To answer this question, a mixed method study was designed to understand individuals' experiences with financial inclusion as well as trends across the data. Ten participants in Latin America were interviewed and the interview transcripts were analyzed thematically. Additionally, four World Bank data sets focused on internet access and bank account holders, GDP per capita and bank account holders, GDP per capita and e-banking, COVID-19 and Digital Payments, along with the 2021 G20 Financial Inclusion Report, were analyzed using linear regression modeling.

Participants and Interview Process

Ten participants were identified for this study through convenience sampling. Potential participants were contacted through LinkedIn and additional networking with friends and relatives in order to identify 10 individuals who live in different countries in Latin America and who have used fintech for at least one year. The participants were men and women between the ages of 18 and 65. Before the interviews, I sent an information sheet to the participants providing information about the purpose of the study and that the questions being asked contained little to no risk. I conducted a verbal structured interview with each participant asking eight questions to understand their experience with using fintech. Examples of the questions include: “why do you choose a credit card fintech instead of traditional banks?,” “how did you discover fintech? does anyone motivate you to start using it?,” and “which one do you use more frequently, credit or debit cards?”

Selection of World Bank Data Sets

Four distinct datasets were accessed from the World Bank Open: a) Internet Access and Bank Account Holders, b) GDP Per Capita and Bank Account Holders, c) GDP Per Capita and E-Banking, and d) COVID-19 and Digital Payments. In addition, the 2021 G20 Financial Inclusion Report was utilized. These data sets are publically available online. The four data sets were selected because they provided essential raw data to explore the relationships between factors such as internet access and bank account holders, GDP per capita and banking practices, e-banking adoption, and the transformative impact of the COVID-19 pandemic on digital payments behavior, collectively forming the core of our research (Demirgüç-Kunt, Asli, et al., 2021). The data sets were formulated within the Jupyter computational environment and a comprehensive data preprocessing phase was undertaken, entailing the meticulous elimination of errors, duplicate entries, and outliers, thereby enhancing the overall integrity and structure of the dataset.

Data Analysis

Due to the study’s design, two approaches emerged as the mainstay for extracting meaningful information from data: qualitative and quantitative analysis. These two methodologies, though distinct in nature, complement each other offering a comprehensive understanding of factors to develop financial inclusion.

Qualitative analysis involved the examination of non-numeric data, gathered through interviews to Latinos from Latin America, 18-65 years old, who are fintech and traditional bank customers. It sought to uncover underlying patterns, themes, and narratives within the data, providing depth and context to the research. In contrast, quantitative analysis focused on numeric data sets and employed statistical tools such as exponential regression analysis. This approach allowed for precise measurement and the quantification of findings while at the same time understanding the human experience around fintech.

Analysis of Interview Transcripts

A structured multi-stage process was meticulously executed for the analysis of the interview transcripts. Initially, the transcripts were thoroughly examined to discern prevalent themes and insights. Subsequently, the transcripts underwent a process of annotation, whereby key terms, phrases, and codes were affixed to facilitate data categorization and organization. Following this preparatory phase, the data was systematically conceptualized, resulting in the grouping of information into distinct categories and subcategories, all rooted in the identified themes. A pivotal aspect of this analysis involved the segmentation of data, culminating in the creation of a comprehensive table divided into four distinct sections:

- 1) the overarching category;
- 2) the specific segments related to Fintech;
- 3) the specific segments related to traditional banks; and,
- 4) the conclusive findings.

Within this framework, an intricate comparative analysis was undertaken encompassing hierarchies among categories and a nuanced consideration of the data's significance, all meticulously documented in the designated sections. Ultimately, this analytical process facilitated the composition of a table encapsulating the essence of the comparative analysis, thereby contributing to a comprehensive understanding of the subject matter.

Analysis of Data Sets

The data analysis in this study was conducted using the World Bank datasets sourced from the 2021 Global Findex database (Demirgüç-Kunt, Asli, et al., 2021), specifically compiled for the G20 financial inclusion indicators. Following the step of preprocessing in Jupyter notebooks, the data was subjected to a rigorous analytical process in Python, resulting in the construction of a dataset conducive to exponential regression analysis. This dataset was subsequently utilized to generate data visualizations, facilitating the communication of key findings and insights derived from the analysis.

Findings

Comparative Analysis

A comprehensive comparative analysis framework was developed from the interview data to understand the benefits and barriers of using fintech over traditional banks. These findings are in the categories of: a) obtaining an initial credit card, b) monetary safety in checking accounts, c) annual fees, d) other fees and commissions, e) rewards, f) customer service and g) app navigation. Table 1 provides a succinct comparative analysis of these categories between fintechs and traditional banks.

Overall Findings

A common observation from this data is people prefer fintech over traditional bank accounts due to the proper customer service and convenience. All the respondents complained of having had a bad experience with the banks initially, which has been solved by fintech. It is also noted that credit cards are mostly used more often than debit cards as a way of raising an individual credit score. The people interviewed preferred having fintech due to the vast advantages compared to traditional bank accounts. When opening a bank account, an individual's credit score is a requirement, which limits them, thus making them opt for fintech, which does not require a credit score. In both cases, commissions are competitive. Traditional banks are, however, safer than fintech which is completely used online. It, therefore, means that both traditional bank accounts and fintech are important due to the services that they provide to the people. However, fintech has increased financial inclusion in Latin America and is more flexible.

Obtaining Initial Credit Cards

The barriers associated with obtaining one's initial credit card are discernibly distinct between Fintech entities and Traditional banks. Fintech firms exhibit a greater degree of flexibility, eschewing the necessity of a credit score as a prerequisite, in stark contrast to the stringent credit score requirement imposed by Traditional banks.

Monetary Safety

When choosing between Fintech and traditional banks, individuals should prioritize safety, with traditional banks typically offering greater security due to IPAB certification and reputation, despite requiring additional steps for account setup.

Category	Fintech	Traditional banks	Conclusions
Getting your first credit card	No credit score is a requirement	Previous credit score is a requirement	Fintechs are more flexible
Money safety in checking account	The process is 100% online. They require your ID and your cell phone number. You can request either your physical or online credit card. Most of them do not have the IPAB certification; therefore, your money is not 100% safe. Cashing out your money is possible with convenience store partnerships and also in any bank outlet depending if your card is a visa or Mastercard paying an extra fee.	Your ID and cellphone number are a requirement. You open your bank account either in person or online. The IPAB will validate and protect your money increasing safety. Partnerships to cash out your money in other bank outlets.	To avoid the lack of certification people should take into consideration other aspects such as the reputation of the fintech to take the decision and open a bank account. Safety is first, at this point, traditional banks are better
Annual Fees	There is no mandatory annual fee; you can use a credit card whenever you decide. The APR is very similar to that of traditional banks which makes it very competitive.	Annual payment for using the credit card is mandatory if you don't use your card every month and if you don't spend a certain amount of money you will need to pay a fee.	Fintech are flexible and competitive which means that in this category fintechs are better.
Other fees/commissions	Fintechs are not going to charge a transaction fee. However, every time you want to cash out or deposit your money you will need to pay commissions.	Nowadays it is very rare to pay commissions to open an account in traditional banks. Additionally, the huge infrastructure of the bank allows you to find an outlet on almost every street to cash out without any extra commissions.	This will be a tie because the commissions are very competitive in both fintech and traditional banks.
Rewards	Cashback on all purchases until 4% cashback. For keeping your money in your deposit account fintech such as MercadoPago you can get interested with no time restriction to use it. Additionally, benefits in convenience stores and coffee shops like Starbucks. Finally, the "invite friends" option can get extra money such as \$15.	Point system every time you buy something. Cashback until 2% depends on the bank. This is only in credit cards and in debit cards there are no rewards.	Fintechs are better
Customer Service	Fintechs prioritize speed, convenience, and personalization.	Traditional banks use experience, history, and offer standardized services with delays.	Fintechs are better
App navigation	Most of the fintechs have one app for debit cards and another for credit cards. This damages the navigation of the customer making an awful customer experience.	The largest banks in Latin America have a very easy-navigate app with all the features to improve the customer experience.	Traditional banks are better.

Table 1: Comparative Analysis of Using Fintech and Traditional Banks

Annual Fees

A discernible disparity arises in terms of the imposition of annual fees. Fintech entities, in their characteristic approach, do not impose a mandatory annual fee upon their clientele, whereas Traditional banks invariably require the payment of such a fee.

Rewards

In the realm of incentives proffered to their patrons, a noteworthy distinction emerges. Fintech firms extend a range of enticements, including cashback rewards, interest accruals, and perks associated with convenience stores, catering to the preferences of their customer base. In stark juxtaposition, Traditional banks offer comparatively modest incentives, primarily targeting a demographic with a high credit score.

Customer Service

The dimension of customer assistance and support provided by these financial institutions is notably divergent. Fintech firms prioritize expeditious service delivery, convenience, and personalization, aligning with the contemporary demands of their clientele. Conversely, Traditional banks rely on their legacy of experience and history, often offering standardized services that may be characterized by delays in service provision.

App Navigation

Traditional banks in Latin America generally offer a more user-friendly and consolidated banking app compared to Fintechs, resulting in a superior customer experience.

In summation, the qualitative portion of this study's in-depth analysis underscores the substantive disparities between Fintech entities and Traditional banks with regard to their approaches to credit card issuance, annual fees, customer incentives, and support mechanisms. These findings illuminate the evolving landscape of financial services and underscore the distinct value propositions and strategies adopted by these two types of institutions to cater to the diverse needs of their clientele.

Exponential Regression Analysis

Four distinct exponential analyses were generated from the World Data Open Bank data sets. They focus on a) internet accessibility and the prevalence of bank account holders, b) payment modalities employed by Latino consumers, c) utilization of mobile phones for accessing banking applications, and d) the impacts of a global pandemic on financial inclusion. Through the implementation of exponential analysis, distinct results were generated:

Internet Accessibility and Prevalence of Bank Accounts

The initial analysis determined the positive correlation between internet accessibility and bank account prevalence. Exponential regression analysis was used to measure the strength and direction of this connection, revealing valuable insights such as the rate of internet access increases, the rate of holding a bank account also increases (See Figure 1).

Figure 2 illustrates regional statistics, demonstrating the potential influence of internet accessibility on financial inclusion in Latin America. The analysis, supported by exponential regression, unveiled a positive correlation between internet accessibility and the prevalence of bank accounts within the region. For instance, in Argentina, where internet users outnumber bank account holders, there are opportunities to introduce fintech solutions as a means to enhance financial inclusion. In addition, a convergence emerged as in 2021, most countries had levels of Internet use that were higher than those of banking (exception: Brazil and Costa Rica).

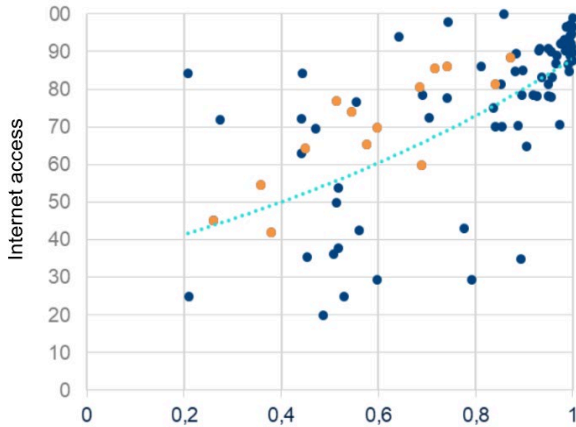


Figure 1: Correlation Between Internet Access and Back Account Holders. Data Source: World Bank Index 2021.

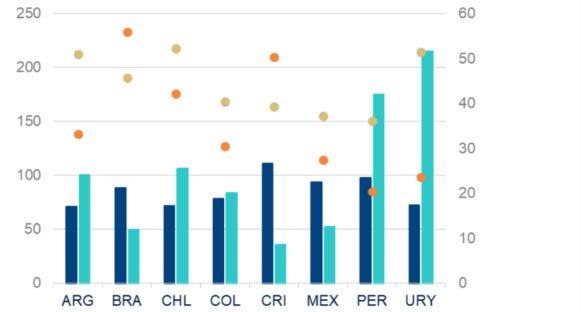


Figure 2: Internet and Bancarization Variation Across the Latin American Region. Data Source: World Bank Index 2021.

Payment Modalities.

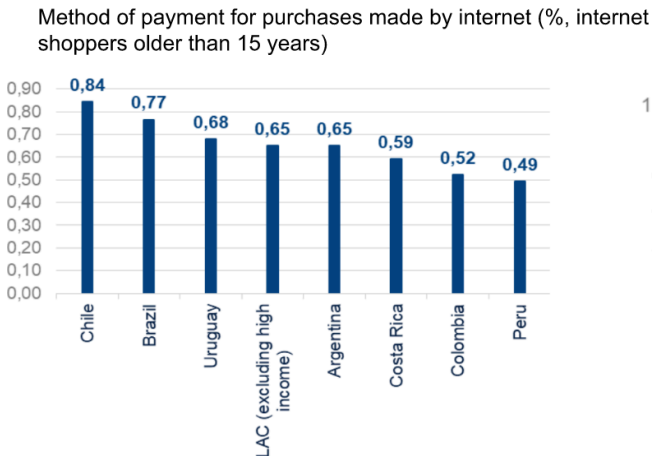


Figure 3: Method of Payment of Purchase Made Online by Country. Data Source: World Bank Index 2021.

The analysis compares e-commerce users and the payment methods used by Latino consumers in online transactions, highlighting credit cards as the primary choice for cashless transactions. Using exponential regression analysis, the findings indicate the growth patterns of payment preferences, finding opportunities to incentivize more in countries such as Peru, as shown in Figure 3.

The use of Internet banking grew with the level of income. In Chile and Brazil, internet banking is close to the average of high-income countries. As a result, as shown in Figure 4, there is a positive correlation between the increase of digital payment in comparison with Cash payment.

Mobile Phones and Banking Applications

In the analysis of the third dataset, mobile e-banking adoption was examined, focusing on the e-banking adoption and GDP per capita. Our findings indicated a moderate positive correlation, with higher GDP per capita corresponding to increased mobile e-banking utilization (See Figure 5). Furthermore, the use of a mobile phone or the internet to check the balance of the account (% of internet shoppers older than 15 years old) and conduct e-banking increased with higher GDP per capita.

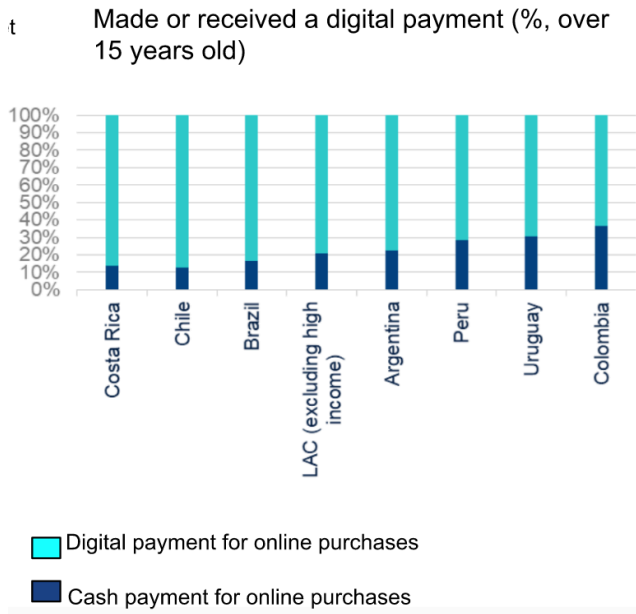


Figure 4: Rate of Internet Purchases by Latin American Country. Data Source: World Bank Index 2021.

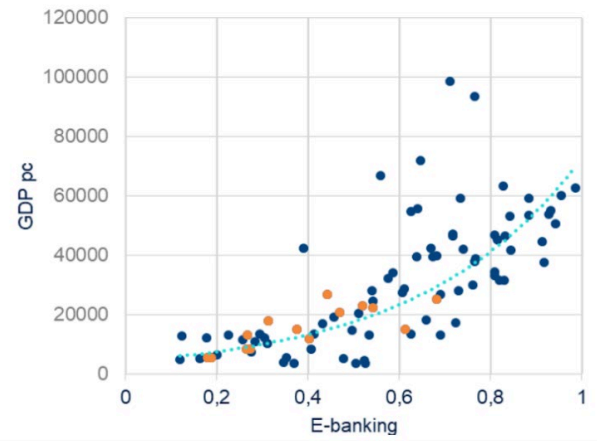


Figure 5: Correlation of GDP Per Capita and Rates of E-Banking. Data Source: World Bank Index 2021.

Further analysis revealed a moderate positive correlation in regional comparisons between high-income countries and e-banking adoption in Latin America, highlighting the region's potential (Figure 6).

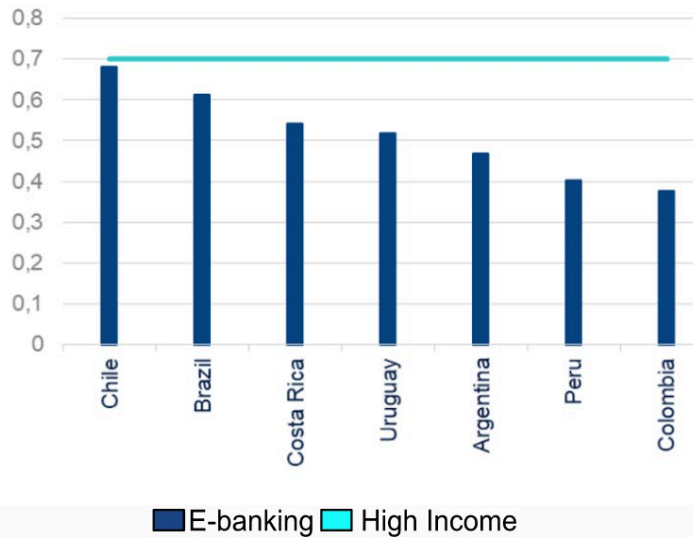


Figure 6: Correlation Between High Income Countries and the Rate of E-Banking. Data Source: World Bank Index 2021.

Favorable Shift towards Financial Inclusion

During the COVID-19 global pandemic, there was a notable surge in Latin American adults adopting digital payments in physical stores, increasing by 33%. This trend was quantified using exponential regression analysis, showcasing a significant and positive shift towards digital payments due to increased card usage, particularly in Latin American markets, as can be seen in Figure 7. For the first time after the start of the pandemic, digital payments increased for those over 15 years of age.

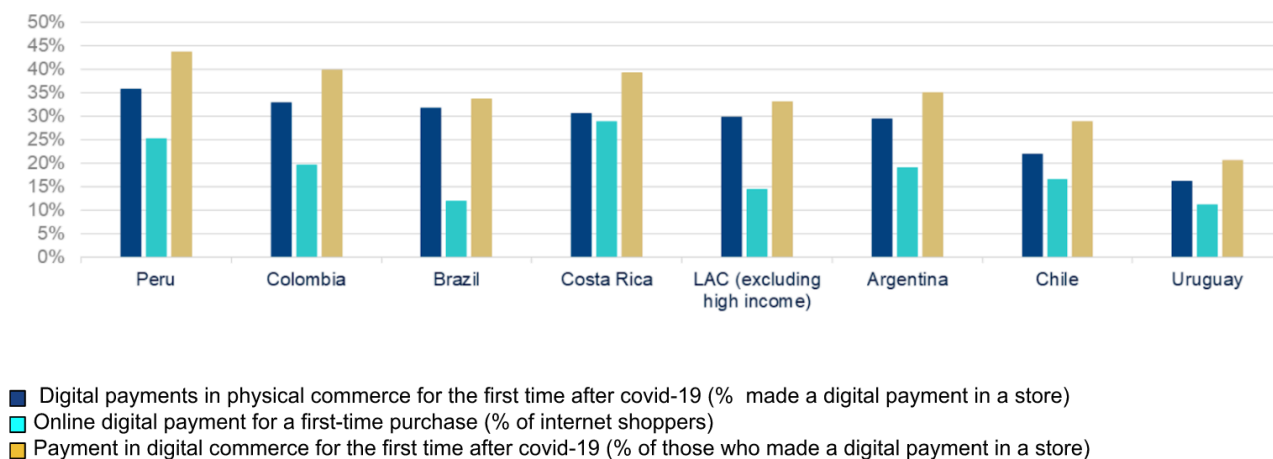


Figure 7: Analysis of the Increase of Digital Payments and the COVID-19 Pandemic. Data Source: World Bank Index 2021.

Discussion

This research has illuminated key factors critical to the continued development of financial inclusion in Latin America, providing insights that enable us to answer our research question and paint a comprehensive picture of the landscape. Three significant factors are identified from the results: the impact of digital preferences, building customer relationships, and COVID-19 as a catalyst for the growth of fintech.

Impact of Digital Preferences

One of the central findings of our study pertains to the preferences of Latinos, particularly in the context of food delivery services. In consideration of the findings from Rappi Bank (Luz et al., 2022), the significant preference for food delivery as an online service reflects the growing appetite for digital solutions in everyday life. This preference is indicative of a broader trend wherein individuals increasingly rely on digital platforms for their daily needs. Such preferences not only foster digital inclusion but also open avenues for integrating financial services into these platforms, enabling users to manage their finances seamlessly while availing other services.

Building Customer Relationships

Another noteworthy finding underscores the importance of building and nurturing customer relationships. In our study, we observed that customer service and transparency were pivotal in shaping financial inclusion. The ability of financial service providers to establish trust and engage customers through effective customer service is a cornerstone of financial inclusion. Creating relationships with customers that are characterized by transparency and trustworthiness not only fosters a sense of security but also encourages individuals to take advantage of financial services. It enhances their confidence in using digital payment methods, ultimately promoting financial inclusion.

Catalyst of COVID-19

Perhaps one of the most significant findings is the transformative impact of the COVID-19 pandemic on consumer behavior. The pandemic acted as a catalyst, accelerating the adoption of digital solutions, including e-commerce and digital payments. Individuals were compelled to shift their behaviors rapidly, adapting to a contactless, digital-driven environment. This acceleration demonstrated the adaptability of Latin American populations when faced with external shocks. It also highlights the resilience of the financial inclusion landscape, where digital solutions played a pivotal role in ensuring access to essential services during challenging times.

My research findings, both quantitative and qualitative, provide a deeper understanding of the factors critical to the continued development of financial inclusion in Latin America. The preferences of Latinos for digital services, the significance of customer relationships and transparency, and the transformative impact of the COVID-19 pandemic have collectively contributed to a landscape where financial inclusion is not only achievable but also responsive to the evolving needs of the population. These insights offer a roadmap for policymakers, financial institutions, and service providers to further advance financial inclusion in the region.

Limitations and Further Research

Limitations exist within every study; it is part of the inherent nature of a research study's methodology and design. With the qualitative study, identifying people with the right criteria was difficult, as a result majority of the people I interviewed were focused more on technology than traditional banks which could skew the accuracy of my research. In the quantitative study, utilizing an exponential regression analysis to examine data associations, it's crucial to recognize the significant limitations. Correlation does not imply causation, and unaccounted-for variables may influence the findings, underscoring the necessity for further research and careful consideration of potential confounding factors.

There are many opportunities for future research on the topic of financial inclusion in Latin America. Due to this being a relatively recent topic, there are many issues that have not been addressed in the financial inclusion literature. Some of the most critical topics that need empirical study include: the risk of financial inclusion, the political economy of financial inclusion, the optimal level of financial inclusion, the effect on macro-financial stability, regulating financial inclusion, differences between rural and urban customers, and other uncommon interventions for greater financial inclusion.

Conclusions & Implications

In conclusion, financial inclusion in Latin America has been improving for the past five years. The effects of Covid-19 led to an increase in online transactions through fintech platforms due to a reduced use of cash transactions. Technology innovation is highly contributing to financial inclusion. Customer service affects financial inclusion because many people only prefer where they get the best services. Although Latin America previously dragged in financial inclusion, there is an improvement, and in the future, more inclusion will be possible.

Fintechs open to give new options to Latinos and motivate them to join the financial system. This is important for Latinos so they can have more benefits such as a credit score which is going to lead to getting a house, a car and even better education.

In Latin America, financial inclusion is not just an option; it's an absolute imperative, a clarion call to unleash the untapped potential of a continent poised for greatness. Boldly, we must recognize that financial inclusion isn't merely a convenience; it's the catalyst for monumental change. It is the power to uplift entire communities from the shackles of poverty and inequality, to propel entrepreneurs into economic stardom, and to empower individuals with the means to secure a brighter future. In this crucible of opportunity, financial inclusion is the forge that forges the weapons of economic empowerment, the armor that shields against the vagaries of fate, and the wings that allow dreams to soar to unimaginable heights. The time for half-measures has passed; Latin America must grasp the mantle of financial inclusion with unwavering determination, for within its grasp lies the transformation of nations and the realization of aspirations long deferred.

Acknowledgments

Thank you to Dr. Gocken Coskuner-Balli and Dr. Erin Gratz for being amazing mentors and guiding me through the research and writing process for my first paper; this wouldn't have been possible without their support.

References

- Aghion, P., & Bolton, P. (1997). A theory of trickle-down growth and development. *The review of economic studies*, 64(2), 151-172.
- Allen, F., Demirguc-Kunt, A., Klapper, L., & Peria, M. S. M. (2016). The foundations of financial inclusion: Understanding ownership and use of formal accounts. *Journal of financial Intermediation*, 27, 1-30.
- Banerjee, A. V., & Newman, A. F. (1993). Occupational choice and the process of development. *Journal of political economy*, 101(2), 274-298.
- Beck, T., Demirguc-Kunt, A., & Peria, M. S. M. (2007). Reaching out: Access to and use of banking services across countries. *Journal of financial economics*, 85(1), 234-266.
- Carpenter, R. E., & Petersen, B. C. (2002). Capital market imperfections, high-tech investment, and new equity financing. *The economic journal*, 112(477), F54-F72.
- Chatterjee, Amrita. (2020). "Financial inclusion, information and communication technology diffusion, and economic growth: A panel data analysis." *Information technology for development*, 26(3), 607–635. doi:10.1080/02681102.2020.1734770.
- Colossus | Investing & Business Podcasts. (2021, August 7). Invest like the best with Patrick O'Shaughnessy: David Vélez - building the Branchless Bank. *Founder's Field Guide*, EP. 41 Apple Podcasts. <https://podcasts.apple.com/pt/podcast/david-v%C3%A9lez-building-the-branchless-bank-founders/id1154105909?i=1000528208707>
- Correa, E., & Girón, A. (2019). "Financial inclusion and financialization: Latin American main trends after the great crisis." *Journal of economic issues*, 53(2), 496–501. doi:10.1080/00213624.2019.1594544.
- Demirgüç-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2022). The Global Findex Database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19. World Bank Publications.
- Dupas, R., & Robinson, J. (2009). Savings constraints and microenterprise development: Evidence from a field experiment. NBER Working Paper Series, 14693.
- Gadnis, A. G. (2022). Blockchain platform for supply chain from Banqu. *Blockchain Platform for Supply Chain From BanQu*. <https://www.banqu.co/platform>
- Galor, O., & Zeira, J. (1993). Income distribution and macroeconomics. *The review of economic studies*, 60(1), 35-52.
- Gershenson, D., Herrera, L., Lambert, F., Ramos, G., Rousset, M., & Torres, J. (2021, August). The direct employment impact of public investment, WP/21/131. <https://www.imf.org/-/media/Files/Publications/WP/2021/English/wpiea2021131-print-pdf.ashx>
- Luz, A. C. S., Saad, E., Nicolau, J. F. C. R. R., Nascimento, I., Hoffmann, V., & Lourenço, V. (2022). Campanha experimental RappiBank: plataforma de comércio digital.
- Morgan, P. (2016, January 1). Overview of financial inclusion, regulation, and Education. *SSRN Electronic Journal*, p. 68. https://www.academia.edu/80150801/Overview_of_Financial_Inclusion_Regulation_and_Education
- Polloni-Silva, E., da Costa, N., Moralles, H. F., & Sacomano Neto, M. (2021). Does financial inclusion diminish poverty and inequality? A panel data analysis for Latin American countries. *Social indicators research*, 158(3), 889-925.
- World Bank (2021). GDP Per Capita and E-Banking Data Set. World Bank Financial Inclusion Website. <https://databank.worldbank.org/source/global-financial-inclusion>
- World Bank (2021). GDP Per Capita and Bank Account Holders Data Set. World Bank Financial Inclusion Website. <https://databank.worldbank.org/source/global-financial-inclusion>
- World Bank (2021). Internet Access and Bank Account Holders Data Set. World Bank Financial Inclusion Website. <https://databank.worldbank.org/source/global-financial-inclusion>

Yoshino, N., & Morgan, P. (2016). Overview of financial inclusion, regulation, and education. *ADB Working Paper*, No. 591. Asian Development Bank Institute (ADBI), Tokyo.