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The Neobanks: A new business model in the global financial ecosystem in times of Covid-19 and its impact on the colombian economy

Los Neobancos: Un nuevo modelo de negocio en el ecosistema financiero global en tiempos de COVID-19 y su impacto en la economía colombiana

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Abstract

Neobanks are a new business model in the global financial ecosystem that have been able to take advantage of the opportunities created by the COVID-19 pandemic. In Colombia, these financial entities have experienced significant growth and can have a positive impact on financial inclusion and competition in the financial sector. The aim of this article was to identify the importance of Neobanks in the economic reactivation in Colombia and global financial trends in times of COVID-19. The article is of a descriptive-analytical type, supported by secondary data collection sources. The results suggest that Neobanks, by offering their digital financial services in terms of accessibility, agility, and quality throughout the Colombian territory, is a powerful strategy for improving the socio-economic situation of rural inhabitants and empowering vulnerable communities. However, a challenge for these entities is overcoming barriers to access financial products in Colombia, enabling greater financial inclusion for population segments that had not been considered by traditional banks, and enabling better capital conditions for investment in the banking sector and the granting of credit to SMEs. It is concluded that Neobanks benefit significantly by incorporating FinTech solutions (Technology in Financial Processes) into their operations. With greater channeling of public monetary resources towards Neobanks, their contribution to the national economy will be greater. This, in turn, will allow for a greater margin of capital maneuverability in the banking sector for the granting of investment credits to SMEs and entrepreneurs, achieving a favorable long-term impact for the country's economic reactivation. Considering the COVID-19 crisis within the financial context, the business models of Neobanks and FinTech are collaborative towards greater financial inclusion without diminishing user security systems.
Keywords: Banking, Neobanks; fintech; inclusion; finance; economy

Resumen

Los Neobancos son un nuevo modelo de negocio en el ecosistema financiero global que han logrado aprovechar las oportunidades creadas por la pandemia de COVID-19. En Colombia, estas entidades financieras han experimentado un crecimiento significativo y pueden tener un impacto positivo en la inclusión financiera y la competencia en el sector financiero. El objetivo del artículo fue identificar la importancia que tiene los Neobancos frente a la reactivación económica en Colombia y las tendencias globales financieras en tiempos de COVID 19. En lo metodológico, el artículo, es de tipo descriptivo-analítico, apoyados en fuentes de recolección secundaria. En los resultados se concibe, que los Neobancos, al ofrecer sus servicios financieros digitales en términos de accesibilidad, agilidad y calidad en todo el territorio colombiano, tal propuesta de valor es una estrategia poderosa para la mejora de la situación socioeconómica de los habitantes de las zonas rurales y en el empoderamiento de las comunidades más vulnerables. Sin embargo, se convierte en un reto para estas entidades, la superación de las barreras en el acceso a productos financieros en Colombia, donde se posibilite una mayor inclusión financiera a segmentos poblacionales que no habían sido tenidos en cuenta por la banca tradicional, además de que se posibiliten unas mejores condiciones de capital hacia la inversión del sector bancario y de otorgamiento de créditos hacia las Pymes. Se tiene como conclusiones, que, los Neobancos se benefician de manera significativa, al incorporar soluciones Fintech (Tecnología en los Procesos Financieros) a sus operaciones, debido a que al existir mayor canalización de recursos monetarios del público hacia los Neobancos, mayor será el aporte de estos hacia la economía nacional, debido a que existen un mayor margen de maniobra de capital en el sector bancario para el otorgamiento de créditos de inversión hacia las Pymes y emprendedores, lográndose al largo plazo un impacto favorable para la reactivación económica del país, y considerando particularmente, que ante la crisis del Covid19 dentro del contexto financiero, el modelo de negocios de los Neobancos y de las Fintech son colaborativas una mayor inclusión financiera sin aminorar el sistema de seguridad de los usuarios.
Palabras clave: Bancario; neobancos; fintech; inclusión; financiera; economía

Introducción

Technological innovation in the banking and financial sector is present through digital banking services, where the concept of *Neobanks* becomes relevant. These entities are characterized by being more accessible and innovative than traditional banks, usually operating from an application instead of a branch or physical office. Digital banks, unlike traditional banks, offer novel services through a strong digital interface, often designed to appeal to specific consumer groups. In that sense, the arrival of these businesses is due to the high degree of digitalization of the banking sector, and whose financial technology innovations are called '*Fintech*' (Japparova and Rupeika-Apoga, 2017), offering a financial portfolio similar to that of traditional banking (Vives, 2020).

This digitization of financial services brought about a transformation of banking business processes, being considered viable and efficient, because they provide support to processes related to attracting customers, increasing brand loyalty, better understanding of customer needs, service customizations, improving revenue streams, and decreasing cost levels (Japparova and RupeikaApoga, 2017).

These digitized banks offer services through a mobile application, unlike traditional banks, where the demand for opening products to serve customers is through digital channels, and are characterized by accessibility in financial services and lower costs inbanking operationscompared totraditional banks; the speed of opening the product is another advantage of this segment.

Likewise, the digitalization of banking services has generated a new form of communication with customers in the banking sector, therefore, the Neobank concept implies a modification in the structure of traditional banks with the application of innovative technology (Dapp, 2015). This digital transformation considers the modification of internal processes with the objective of its optimization of services (European Banking Autoridad-EBA, 2018). In that order of ideas, Neobanks exploit digital technology to improve the operational efficiency of financial institutions in relation to their products and services (Barquin and Vinayak, 2016).

In the case of the financial industry in Colombia, it is in constant evolution, where digitalization is the main axis of its development to achieve a competitive, reliable, and increasingly effective service for the benefit of financial consumers because the digital business proposal is focused on the customer. This process of innovation in the banking sector is present through the Neobanks, which develop transactional operations through the use of digital technology, especially focused on populations underserved by traditional banking.

These entities are more advanced than Fintechs, which are 100% electronic firms and are similar in terms of their financial operations. Neobanks, on the other hand, rely on Artificial Intelligence-AI, making intelligent use of customer databases (Giudice & Zapata, 2020). These businesses focus on providing flexible and hyper-personalized attention to financial consumers. However, there are high barriers (financial costs, knowledge of banking services, geographic location, service, service guarantee, and security, among others), which hinder financial access to a significant population of the country.

This is descriptive-analytical research and its main purpose is to identify the importance of Neobanks in the economic reactivation in Colombia and global financial trends in times of COVID-19, noting how essential the configuration of Neobanks is in the country since these entities can offer digital financial services in terms of accessibility, agility and quality throughout the Colombian territory. In relation to the results, the main findings of the Colombia Fintech report (Asociación Colombiana de Empresas de Tecnología e Innovación Financiera, 2022a), are described, with the purpose of achieving an empirical approximation about the contribution of these financial entities in the Colombian economy.

State of the Art

Fintech en Colombia

FinTech is laying the foundations for the digitalization of the banking industry. In this context, digital refers to information technology to improve banking products and processes. For established financial institutions, improvements in financial technology applications are essential to the digitization process, as banking is an information-intensive industry, and technological innovations are an essential part of it. Arner, Barberis and Buckley (2015) support this by stating that, "financial services have become a digital industry" (p. 6), which supports the interconnection between Fintech and digitization.

Arner et al. (2015) present a view of the evolution of Fintech in three stages which show how financial innovation has shifted from large infrastructure providers to banks. In the first stage, in the periodfrom 1866 to 1987, modern technology and progress in communication infrastructure enabled the creation of a globally interconnected banking system. The 'Fintech 1.0' was driven by large infrastructure providers and laid the foundation for the banking system we know today (Arner et al., 2015).

In the second stage, traditional banking matured and increasingly adapted to the technological infrastructure by improving its digital offerings, marking the beginning of modern banking. Despite digital innovations in banks, the incumbents (traditional financial institutions), still relied on their old business models, traditional practices, and extensive branch networks. This phase, called 'FinTech2.0', lasted from 1987 until the materialization of the financial crisis in 2008 (Arner et al., 2015).

The current stage of financial innovation is called 'Fintech 3.0' and began in 2008, the financial crisis of that year was a catalyst for the emergence of new Fintech companies and for the increased speed of transformation in the financial services sector. In addition to the financial crisis, another important factor contributing to these changes was the radical advance in technology.

The emergence of Fintech is largely due to the transformative potential of next-generation Information Technology. The digital revolution has been cited as the driving force behind disruption in multiple industries, although in banking, the effects of digitization —a manifestation of the application of digital technology often used by incumbents to adapt to the new Fintech environment— appeared to have been less pronounced compared to other industries and, as a result, resulted in improvements mainly in the internal processes of these financial institutions.

In 2021, Colombia will rank third in Latin America in terms of Fintech participation, with a total of 279 companies and an increase of 39% compared to the previous year. This increase in the presence of Fintech companies is an example of the impact that Covid-19 had in accelerating digital transformation, especially in the financial sector. Due to the fact that people had to continue performing banking transactions and fulfilling their financial obligations from home, traditional banks had to establish new customer service channels (Márquez, 2021).

In addition, during the pandemic, state subsidy programs were granted to many unbanked people. To solve this, alternatives such as Nequi, Daviplata, DALE, and MOVII were used to make transfers. According to Montaño and Martínez (2021), SMEs are important for the country's economy and digital entities have been beneficial for them, since some do not have the support of traditional banks due to the strict conditions required to obtain financing.

During the last few years, Colombia has positively increased its financial inclusion indicator, and with the arrival of Fintechs, this process has accelerated. According to the Banca de Oportunidades-BdO and the Superintendencia Financiera de Colombia-SFC (2021), access to financial products increased from 87.8% in 2020 to 90.5% in 2021. However, financial support for these companies does not come mainly from external investors, but from family and friends of Fintech *startup* entrepreneurs. Furthermore, according to Finnovista (2021), only 38% of Fintechs in Colombia have received financial support from third parties. It is important to highlight how these financial entities have been a valuable instrument for the growth of SMEs in Colombia, due to the fact that some do not meet the requirement of traditional banking to obtainfinancing (Montaño and Martínez, 2021).

Although Fintechs have been well received in the country, even though there is still no appropriate regulatory framework for this type of business. According to Colombia Fintech (2022b), Salguero and Molina (2020) and Chaparro (2021), these entities must abide by provisions established for traditional banking and laws related to these services, among them are mentioned: Law 1735 (2014) and Decree 2076 (2017), which promote financial inclusion; Law 1955 (2019) is also applicable to Fintechs, as it establishes the parameters for innovative technological development companies, such as minimum capital and operating certificates and establishes the supervision of the Financial Superintendence of Colombia.

In addition, there are laws such as *Habeas Data* (Law 1266, 2008) and Decree 1692 (2020) which apply to low-value payment systems. In the country, Fintechs have been growing over the years, as shown in Figure 1, on the "number of companies in the Fintech ecosystem in Colombia", because, these companies in the year 2021, experienced a growth of just over 39%, which makes them an alternative for those who do not meet the requirements to access the traditional banking service.

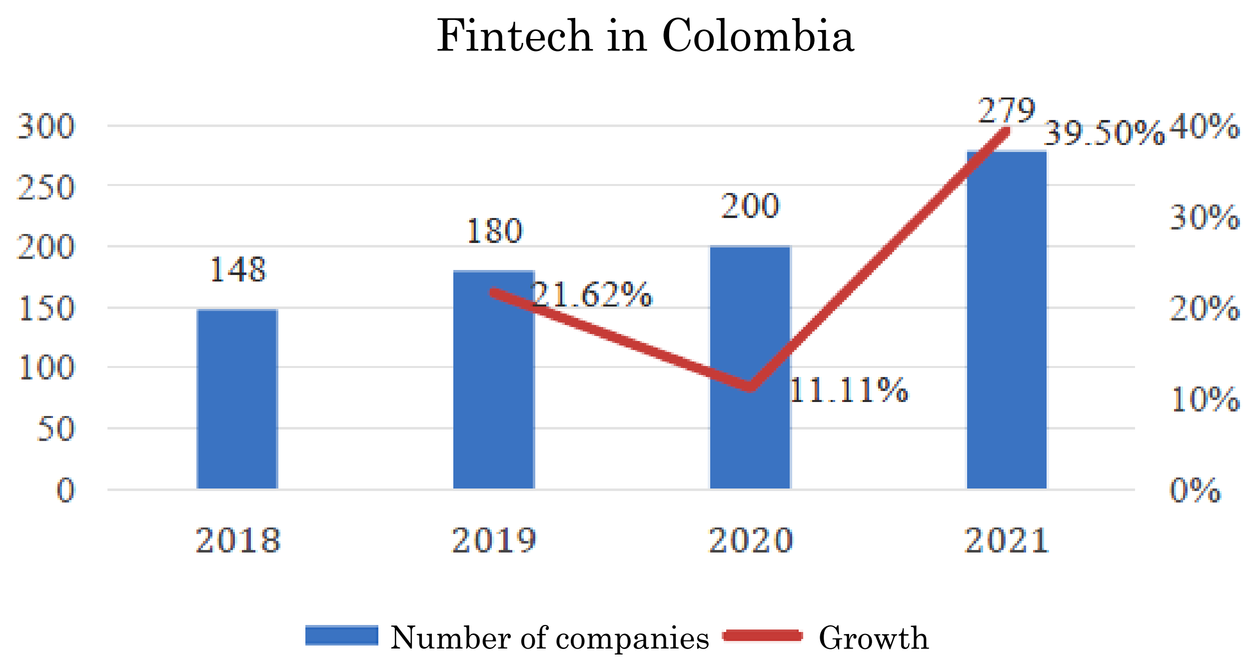

Figure 1. Growth of Fintech companies in Colombia .
Source: Adapted from Finnovista (2021).

Some traditional banks have also ventured into the Fintech world, launching Neobanks suchasDaviplata, Nequi, and DALE. This has expanded the portfolio of services and has allowed the users of these banks to receive innovative and convenient financial services.

Neobanks

Neobanks are digital financial institutions that offer complete banking services through online platforms and mobile applications. Unlike traditional banks, theseentities donot have physical branches and operate entirely online, offering an efficient financial service at a lower cost.

Arslanian and Fisher (2019) note that Neobanks, also called virtual banks, digital banks, challenger banks, or neo banks, are differentiated from their incumbent competitors by their innovative approach to financial service delivery. Glushchenko, Hodasevich and Kaufman (2019) describe these entities as fully online banks, without physical branches, built on new technological platforms that contrast with the outdated infrastructure of traditional banks.

Gouveia, Perun y Daradkeh (2020) define them as 100% digital banks that only communicate with their customers through mobile applications and personal computer platforms. Khayrallah, Radia, Hickey, Singh and Xu (2015) suggest that these businesses are an extension of the prepaid card business and only offer synthetic banking services with internet-only operations, avoiding branches altogether.

Knewtson and Rosenbaum (2020) state that digital banks are essential in the banking-as-a-service ecosystem, as they provide convenience to customers through mobile and online banking, and compete with an increasingly consolidated banking industry. On the other hand, Gorodianska, Nosenko and Vember (2019) note the existence of a variety of interpretations of the definition of 'neobank', being considered by some as a type of direct bank which operates exclusively digitally through mobile apps and personal computers.

According to Lumpkin and Schich (2020), the term 'neobanks' is used to denote new digital banking initiatives that are not legally banks and which are also distinguished from digital subsidiaries of traditional banks. Martinčević, Črnjević and Klopotan (2020) define them as entities without physical locations and with a digitized service infrastructure. According to Soloviev (2018), these work entirely in the digital space and have no physical branches.

Tosun (2020) adds that while traditional banking provides digital banking solutions to its customers, a Neobank is a fully digital bank which operates without physical branches and offers digital banking solutions to itscustomers, such as internet and mobile banking. From all these definitions, a consensus can be found among most authors, where Neobanks are defined as fully online banks without any physical branch or face-to-face location.

Regarding the differentiation between Neobanco and Fintech, it is stated that the former is an entity that is part of the set of businesses of the latter (Colombia Fintech, 2020a). Neobanks focus on offering a more agile and simple service to customers (Finnovista, 2021), and on the interest of key aspects of the business, such as available products, customer service time, costs, and geographic availability of services, among others.

Innovative technology in these entities makes it possible to provide financial services in a more efficient manner and with a higher levelof flexibility. Inthis sense, these types ofentities are increasingly gaining a competitive position in the financial market. These financial entities provide a combination of checking accounts, savings accounts, and debit cards through digital channels, mainly mobile, without physical bank branches (Barba, 2018).

The digital applications of these entities are designed to improve the habits of savers and, in that sense, maintain the same nature and functionality as traditional banks. In addition, they provide an easy and simple account startup supported by digital platforms for better customer service (Watkins cited by Jaiswal, 2022), in which, the customer can perform their banking operations through smartphones, and ATMs, therefore, this business model is attractive to young people and/or people with simple banking needs, becoming competition for traditional banks, because they promote better interest rates, lower fees, if any, and better service. These entities focus on new customers in the market, but with certain segmentation, due to their brand positioning, communication language, and perception.

It is important to mention that these entities are oriented towards the expansion of their services and product innovation for individuals and SMEs because they enable easy access to their financial products with lower operating costs and agility in services. Through the services of these banks, a client can generate an account with less paperwork and in less time than in a traditional bank; this advantage alone makes possible greater access to banking services for broad sectors of the population, which is commonly referred to as financial inclusion.

Neobanks in Colombia

In Colombia, Neobanks are beginning to gain ground in the financial market, the best known being: Nequi, DaviPlata, and Movii, among others. These businesses offer services such as savings accounts, credit cards, electronic transfers, online payments, and other financial options.

The arrival of Neobanks in the Colombian economy has several implications. First, these entities offer greater convenience and accessibility to banking services, especially for those who do not have easy access to a traditional bank branch. In addition to the above,theyoftenoffer lower feesandlower requirements to open accounts, whichcanhelp reduce costs for consumers. However, there are also concerns about the security and financial stability of Neobanks because they do not have the same regulatory structure and oversight as traditional banks.

Neobanks are having an increasing impact on the global economy. These digital financial institutions have grown rapidly in recent years, offering innovative banking and financial services through online and mobile platforms. Some of the impacts these digital-like entities are having on the global economy are as follows:

- *Financial inclusion*: Neobanks arehelping to improve financial inclusion around the world, offering services to people who previously had no access to them due to geographic or economic barriers.
- *Reduced costs*: These entities typically have lower operating costs than traditional banks, allowing them to offer lower fees and lower-priced services to consumers.
- *Competition*: The entry of Neobanks into the financial market is increasing competition among traditional banks, which may lead to greater innovation and a better customer experience.
- *Innovation*: Digital banks are driving innovation, creating new products and services which can improve the efficiency and convenience of financial operations.
- *Security*: These businesses usually have advanced security measures in place to protect customer information and ensure the security of their transactions.

However, there are also concerns about the financial stability of Neobanks because they do not have the same regulation and supervision as traditional banks. In Colombia, these entities are regulated by the Superintendencia Financiera de Colombia-SFC and are subject to the same regulations imposed on traditional banks in terms of their structure, operation, and financial services they can offer.

In September 2019, the SFC issued External Circular No. 16 which establishes minimum requirements for the incorporation, operation, and supervision of Neobanks in Colombia (SFC, 2019). This circular establishes how this type of business must have an adequate organizational structure, have a viable business plan, have the necessary technological resources for its operation, and comply with the minimum capital and reserve requirements established by the SFC. In addition, these entities are required to comply with the rules and regulations for the prevention of money laundering and financing of terrorism, and must have adequate computer security mechanisms to protect the information and resources of their customers.

The regulation of Neobanks in Colombia is based on various laws and regulations, some of which include those set out in Table 1:

Table 1.
Regulatory standards for Neobanks in Colombia.

Standard	Content
Law 510 (1999)	Establishes the general framework for the organization and operation of financial entities in Colombia.
Decree 2555 (2010)	Regulates the financial activity and supervision of the financial system in Colombia.
External circular No. 16 (2019)	Establishes the minimum requirements for the constitution, operation, and supervision of Neobanks in Colombia.
Resolution 1348 (2019)	Establishes the minimum technical requirements for the operation of electronic payment systems in Colombia.
Basic Legal Circular of the Superintendency of Finance of Colombia	Contains the rules and regulations governing financial activity in Colombia, including the activity of Neobanks.

Source: Own elaboration.

These laws and regulations establish the requirements and standards that Neobanks must comply with to operate in Colombia and offer financial services to their clients.

Neobanks and financial inclusion

According to Manyika, Lund, Singer, White and Berry (2016), financial inclusionrefersto the fact ofprovidinghouseholds with a variety of financial services that are similar to traditional banking, but with new technological components and advice to customers, therefore, such operations must be accompanied by an educational process. However, there are barriers to financial inclusion which are important to analyze.

One of these barriers to financial inclusion is the high cost of the services offered by banks and, in this regard, a global survey by Findex showed that the most common barrier is that people do not have enough money to open an account in a financial institution because it is considered costly (Demirgüç-Kunt, Klapper and Singer, 2017).

Similarly, it is considered that 26% of adults worldwide, consider the high cost of financial services as a limitingfactor for accessibility to the traditional banking sector, and this figure is 60% for the Colombian case (Demirgüç-Kunt et al., 2017). In underdeveloped countries, fixed transaction costs and account maintenance fees make it difficult for the majority of the population to be able to carry out their banking transactions or maintain a steady cash flow to justify owning a banking product (Dara, 2018).

In Colombia, the asymmetric information of the financial markets explains the high costs of the banking entities when offering their products in the credit markets, which makes it even more difficult for the unbanked to access credit. This situation of high costs is where financial services through mobiles take relevance by making them more affordable (Dara, 2018), due to the fact that it has been identified that Big data, Machine learning, AI, and Blockchain, among others (Deep Knowledge Analytics-DKA, 2018), reduce operating costs (Dara, 2018). All this cost reduction leads to reduce financial transactional costs, as well as the reduction of investment in bank branches.

The cultural and especially the educational aspect is another barrier to financial inclusion since many of the population in developing countries do not have an educational level that provides them with greater knowledge and enables them to have better access to the banking sector. According to a 2017 Global Findex report, 62% of unbanked people in the world only have a primary education or less when compared to 50% of the adult population in developed countries (Demirgüç-Kunt, Klapper, Singer, Ansar and Hess, 2018).

In line with the above, financial regulators are required not only to guarantee citizens easy access to the financial sector but also to impart sufficient knowledge for the proper development of financialtransactions. A global surveyby SandP in 2015 found that Colombia presents the highest financial illiteracy in the world, with less than 3% of adults with primary financial education (Klapper, Lusardi and Van Oudheusden, 2015). Similarly, for the CAF (Development Bank of Latin America), this lack of knowledge is also transferred to Colombian bankers as they do not know how to compare market options and present cost problems in their entities (Peña, 2020).

On the other hand, the significant lack of financial knowledge causes many Colombians to get into excessive debt, due to their inadequate personal financial management, lack of savings, and even financial problems in investment (Peña, 2020). All of the above generates distrust in financial services, due to their difficulties in such operations or the knowledge of people who have had it. Misinformation and lack of trust are significant barriers to financial inclusion, but financial education undoubtedly favors financial inclusion and, at present, such education is transferred to provide knowledge on the use of digital technologies, in view of the transformation that is taking place in all banking services and finance in general (Dinero, 2019).

In line with the above, the digital enables greater financial inclusion. Alejandro Useche, professor at the School of Management of the Universidad del Rosario (Colombia), states that the key is not:

> [...] the acquisition of the latest algorithms or the development of robots or automatic platforms for investments, but to achieve the training of users [...] They must know the financial assets, the trading channels, and their characteristics, otherwise, we will spend a long time talking about a true digital transformation and financial inclusion (Portafolio, 2019, parr. 6).

In the field of financial education strategy, FinTechs become relevant as they serve as intermediaries between the services of these entities and customers, and as strategic input for financial advice and education. In addition (DKA, 2018), by allowing to present of financial education as a game where the user learns a particular topic relatedto financial productsand grounds for financial decision making (Castillo, 2019). For all the above, it is conceived that the digital system is collaborative with the significant increase in financial inclusion (Dara, 2018).

Culturally, it could be argued that, in some financial institutions, the language and the lack of understanding of certain financial terms hinder the accessibility of such services; therefore, financial education is required to facilitate this knowledge and adapt to the linguistic conditions of a country. In the Colombian case, it is required the disseminate of a greater knowledge of topics related to interest, financing, fund management, or how to simply manage a credit or savings account, among other aspects.

Another barrier to access to the banking sector is to be able to establish customer profiles considering issues of disability, ethnicity, religion, culture, age, socioeconomic status, or gender, due to the fact that there are sectors that are excluded from the financial system, women being one of the most affected. There is still a gender gap in accessibility to financial services with more than 1 billion women not benefiting from the mainstream financial sector (Demirguc-Kunt et al., 2018).

The United Nations-UN (2015), in line with the fulfillment of the fifth Sustainable Development Goal, states the need to develop policies that enable greater accessibility for women in banking. In Colombia, despite some progress, there is still a continuing gender gap, and perhaps this is due to the fact that women have fewer jobs and low salaries (Arango, Castellani and Lora, 2016). It is also considered that the gender gap may be due to unique factors, such as the predominance of patriarchy in Colombia, which has made it difficult for women to have more employment (Restrepo, 2020).

There are technological barriers to women's accessibility to digital banking (Demirguc Kunt, et al., 2018), and in that sense, FinTech (supported by new technologies) could achieve a significant reduction in the gender gap, by generating greater accessibility for women in the banking sector. In addition, new technologies could generate benefits for people with disabilities, where machine learning algorithms are of great help to these people, therefore, with the support of technology, greater financial inclusion would be possible, taking into consideration those aspects related to ethnicity, religion, culture, age, socioeconomic status or gender.

Another aspect to consider within the barriers to inclusion is that related to territory, time, and cost of sending the user. Regarding the territorial aspect, it has been evidenced that, rural banking coverage is lower than urban banking coverage because 61% of urban adults have a formal account compared to only 8% of adults in rural areas (Manyika et al., 2016).

Remoteness is another aspect that affects the lower rates of customer acquisition by banks, becoming another barrier to banking accessibility (Demirgüc-Kunt et al., 2018). In studies conducted by the UN, it was found that, 80% of the poor live in rural areas, which according to their geographical location makes it difficult for these people to access the banking sector. According to the BdO of Colombia:

> [...] bringing financial services to rural populations is not an easy task, since high transaction costs, coupled with low income, high informality, low financial literacy and land tenure problems of the rural population make it difficult for financial institutions to develop cost-efficient and sustainable business models (Restrepo, 2020).

In relation to user time barriers and shipping costs, financial services in very remote areas are very delayed and with high costs, therefore, digital financial solutions achieve an increase in financial inclusion in more distant territories in the nations, by establishing the use of more efficient financial channels to the rural sector, reducing significant costs of time and travel, in addition to such services are at lower costs.

Digital platforms for FinTech payments and remittances can significantly reduce time and cost because people in rural areas avoid costly trips from remote areas to the nearest bank branch. They would also find it easier to obtain credit because these FinTech systems offer tremendous opportunities to expand markets and reduce financial costs. The application of cell phones for digital transactions is a favorable aspect for financial access for rural populations.

Other significant barriers to financial inclusion are related to the account opening process because the user encounters a number of procedures and requirements that discourage the use of such services. Globally, high bank red tape is hindering financial inclusion (Demirgüc-Kunt, et al., 2018), and in some cases, the bank requires a lot of paperwork to open an account, or the process takes a long time.

The fact that users have to go through tedious protocols or conduct interviews with financial institution officials becomes a barrier to financial exclusion. Faced with these operational deficiencies in the traditional banking sector, technological solutions driven by FinTech become relevant, as they streamline these services and improve efficiency by automating processes and reducing administration tasks (Restrepo, 2020).

Chatbots (software applications for chatting with users), which enable access to financial services without the need for advice and support from the financial institution's experts, play an important role in Neobanks' efforts to reduce time and costs. These applications reduce operating costs and reduce operating costs, in addition to facilitating transactions outside of normal business hours.

Lack of trust in banking entities hinders users' access. Globally, 16.5% of unbanked users consider that lack of trust in the banking sector is a barrier to financial inclusion, in Latin America this percentage doubles (Demirgüc-Kunt, et al., 2018). Security is another factor to consider within the component of good financial service to customers, and this in turn, becomes a major challenge for FinTech, in that sense, many studies show that digital platforms strengthen business expansion, and capital investment and as a means to alleviate financial crises (Demirgüc-Kunt, et al., 2018).

The problems of the banking sector in Colombia are described by the Consejo Nacional de Política Económica y Social-CONPES (2020), which it states that:

> [...] there are incomplete credit markets for MSMEs and individuals in rural areas; in addition, there is asymmetric information between banking entities and potential users due in part to the impossibility of making the traceability of transactions visible. Similarly, there is a low use of digital transfers and payments by individuals and businesses, and the costs of the low-value payment system can still be reduced. On the other hand, users do not have the economic and financial education to make (p. 3).

The before mentioned aspects must be strengthened to generate greater financial inclusion, in line with the country's economic growth needs.

Neobanks and economic recovery

The Colombian Fintech ecosystem is one of the largest in the world, in which, 200 new companies have been identified with 50 new startups were incorporated in the last year, with a growth of 26% last year (Colombia Fintech, 2020a). Domestic Fintech companies have shown continued growth across the industry, 58 startups reported having received external funding, with a growth of 3% in 2020 (Colombia Fintechs, 2020a).

On the other hand, according to the BdO and SFC (2021), at the end of 2020, there were approximately 2 million users who had received financial services, and where Fintechs have had a significant role because this ecosystem has become a vehicle for financial inclusion by providing great value in female empowerment through the creation of legal solutions with a gender perspective.

The arrival of Neobanks in the country has had a favorable impact on financial inclusion, due to the technological applications of these entities, which facilitate monetary transactions.

Fintechsenable financial services in remote rural areas and for vulnerable groups, such as the urban poor, reducing information asymmetries between financial offerers and demanders, especially for the unbanked (International Monetary Fund-IMF 2019), therefore, these potentialities make it differentiable from traditional banking, in which these Neobanks enable the reduction of financial conflicts and improve financial inclusion for which its rapid expansion in the financial market is due.

However, the opportunities generated by Fintech bring with them new challenges for financial inclusion, since certain groups may be excluded due to the lack of access to smartphones and affordable Internet data plans (IMF, 2019). These Neobanks by enabling greater access to the population and small businesses in the financial market, especially in developing countries, manage to strengthen the monetary accumulation of the banking sector which will significantly strengthen investment and financial irrigation to the different economic sectors of the countries, therefore, the Neobanks with their financial inclusion policies favor directly and indirectly in the economic reactivation.

Through innovative technologies, Neobanks managed to modernize the payment and credit system by offering better financial services at lower costs, strengthening the collections of the banking sector, and helping users improve their finances. These entities focus on the younger population, which is an unbanked segment, increasing the breadth and depth of their product portfolio. Another segment of interest for Neobancos is SMEs, consideringthat this sector is underdeveloped and clients are poorly served, especially in terms of investment loans because traditional banking establishes too many requirements for such loans to these small companies.

Neobanks, due to the application of digital technologies within the financial portfolio, are competitive in terms of providing greater access to financial services to populations that are excluded due to their marginal economic situation and, therefore, the digital transformation of the banking sector, as well as Fintech companies, play a fundamental role in a true transition to a new paradigm of financial inclusion and digital commerce. Inthissense, financial services must be universalized and access must be ensured for the entire population through the connectivity of the commercial system via cell phones. Similarly, greater knowledge of these digital financial tools is needed by individuals and MSMEs.

Technology is also required to create a digital identity for users and companies, as well as rules and regulations to streamline technical aspects regulate business incentives, and protect the use of personal data by establishing minimum standards for the treatment of information. Undoubtedly, FinTechs, by streamlining financial market operations and achieving greater financial inclusion, have a significant impact on the national economy.

Neobanks worldwide arecharacterized by providing knowledge and opportunities on the stock exchanges, and such information is delivered personally to customers via cell phones. They also offer client fund management services, with respective recommendations for investment in securities and high security businesses. These entities apply artificial intelligence systems, which enable them to select information to customers and offer them stock market investment opportunities, aswell as, through these systems, guide them in the investment of stocks and bonds at the corporate level.

In addition, these banking systems offer lower rates on short-term and long-term loans compared to traditional banking and enable fast cash withdrawals in any country, as well as time deposit services with high interest rates. It is noted that these digital banks offer SMEs soft loans (low interest rates), in order to enable the growth of these business units. These digital banks develop operations for international remittances, can negotiate debts of their customers with other banks, and perform mass financing, supporting financial operations, in which customers can finance a company or building, depending on the needs of users (CrowdfundOP Team, 2018).

Fintechs facilitate local and international investments because, on the one hand, they make it possible to raise more funds from the public for investment, and on the other hand, these entities, through their service infrastructure (use of platforms and digital tools), are able to contribute to growth, positioning, productivity, and innovation in those sectors of the population that has been excluded from traditional banking and have had difficulties in obtaining working capital (Sahay et al., 2020). This financial inclusion of excluded segments and MSMEs is a favorable aspect for the productivity of companies, and this is ultimately reflected in GDP growth.

According to Manyika et al. (2016): “The widespread use of digital finance could increase the annual GDP of all emerging economies by $3.7 trillion by 2025, an increase of 6 percent compared to a business-as-usual scenario” (p. 4). In line with the above, Neobanks would play a relevant role in the economy due to the productivity of digital payments and additional investment for financial inclusion (Manyika et al., 2016).

In the Colombian case, in times of pandemic, traditional banking has made possible the delivery of monetary resources to millions of Colombians and the granting of greater credit to companies for a total of 525 billion pesos (Amat, 2021). In this sense, the existence of agile digital systems in banking through Neobanks would achieve a greater monetary flow to the economy, which would serve to cushion the current crisis.

In line with the above, the ease of entry to these entities and the achievement of better banking penetration indicators are factors that favor economic reactivation, and therefore, the optimization of monetary resources in individuals and companies become economic boosters, enabling the expansion of such resources to other sectors of the economy with massive user interaction.

From the perspective raised in the Sustainable Development Goals-SDGs, the democratization of financial services means the approach to those people and companies which were excluded from the banking sector or had difficulties of accessibility to it and, therefore, digital banking is collaborative in reducing social inequality, This will allow millions of people around the world to pay for services, save money and obtain credit in a more agile way and with fewer procedures and costs, and all this, in the end, will result in a greater flow of monetary resources to families and sectors of the national economy, and thus lessen the impact of the economic crisis (Suárez, 2021).

In line with the above, Neobanks not only have an impact on the financial system, but also on the economic sector, due to the full range of services they offer in favor of credit, investment, and financing, whether to individuals or SMEs, and where these entities have been able to reduce the asymmetry of information and, therefore, improve both financial inclusion and market expansion.

Methodology

This is a descriptive-analytical article, whose main objective is to identify the importance of Neobanks as a viable alternative for economic reactivation in Colombia. The descriptive part refers to the theoretical evidence of the relevance of Neobanks within the current financial context and the analytical part of this article is limited to relate these new entities with Fintech solutions and their comparison concerning traditional banking.

In the development of the article, the topic of Neobanks, financial inclusion, and the performance of these banking entities in the face of economic reactivation in times of Covid-19 is addressed. The information gathering techniques were obtained through a bibliographic review, in which the secondary sources consulted were official documents, national studies and scientific research published in articles indexed in journalsof national and international recognition in the economic area.

As for the results, the findings of the 2022 Fintech report in Colombia are described to achieve an empirical approximation of the contribution of these financial entities to the Colombian economy. In the end, the respective conclusions are drawn with special emphasis on Neobanks as entities that have contributed to the country's economic dynamics.

Results

This section of results refers to the findings of the Fintech 2022 report in Colombia, which analyzes the impact of these businesses on the Colombian economy, describing the growth of Fintech assets globally, showing the evolution of the Fintech ecosystem in the period 2000-2021 and the impact of some factors of these businesses on the behavior of the national economy. According to Velmie's Fintech Market Forecast report, the Fintech sector is expected to grow by an average of 12.5% worldwide by 2023 (Colombia Fintech, 2022). The IMF's Global Financial Stability Report highlights the rapid global growth of Fintechs (Colombia Fintech, 2022) (Figure 2).

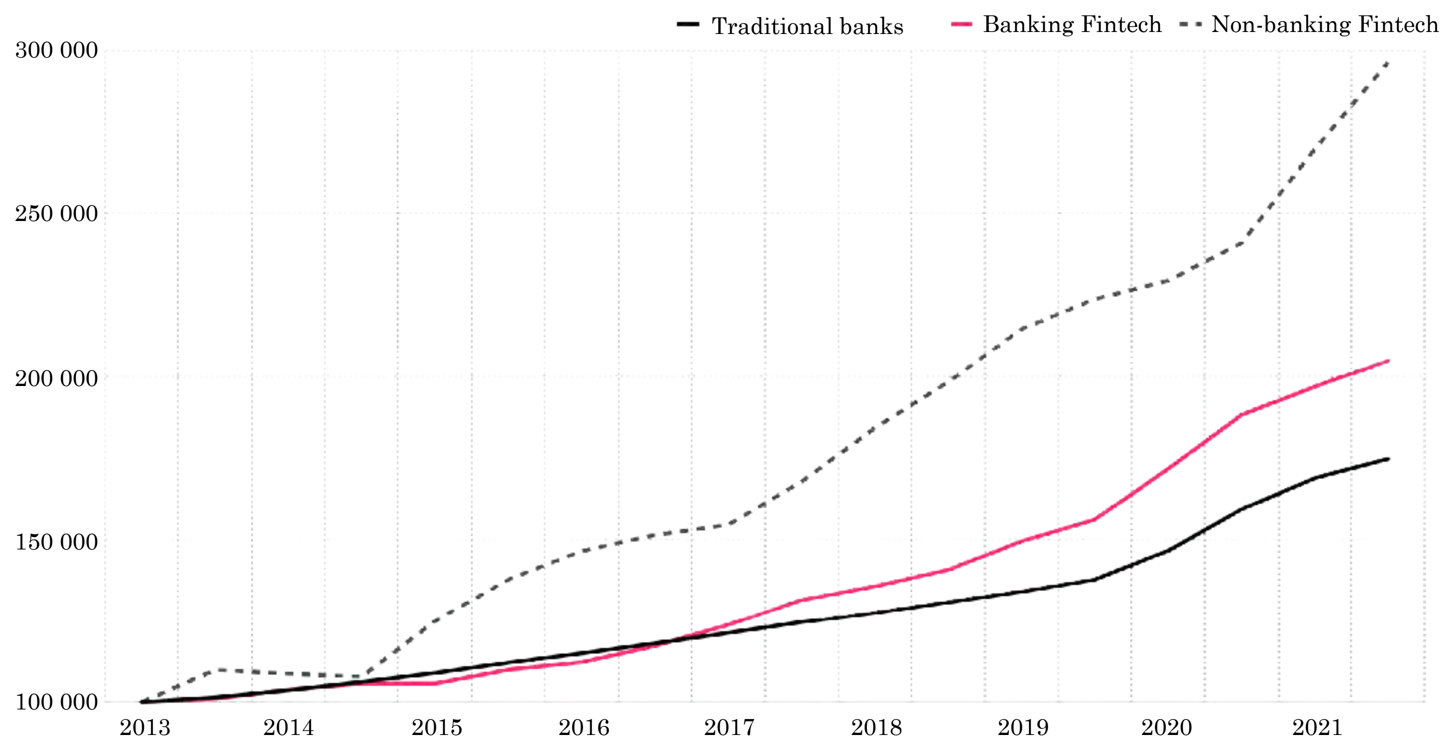

Figure 2. Fintech asset growth (base 2013).
Source: Colombia Fintech (2022).

Figure 3 illustrates the trajectory of the Fintech ecosystem. On the right axis, the bars represent the year of creation of the 299 companies examined and on the left axis, lines show the annual growth rate of the number of companies. On average, the growth of new startups is16%over thelasttwodecades,withanaverage of around 14 new initiatives each year.

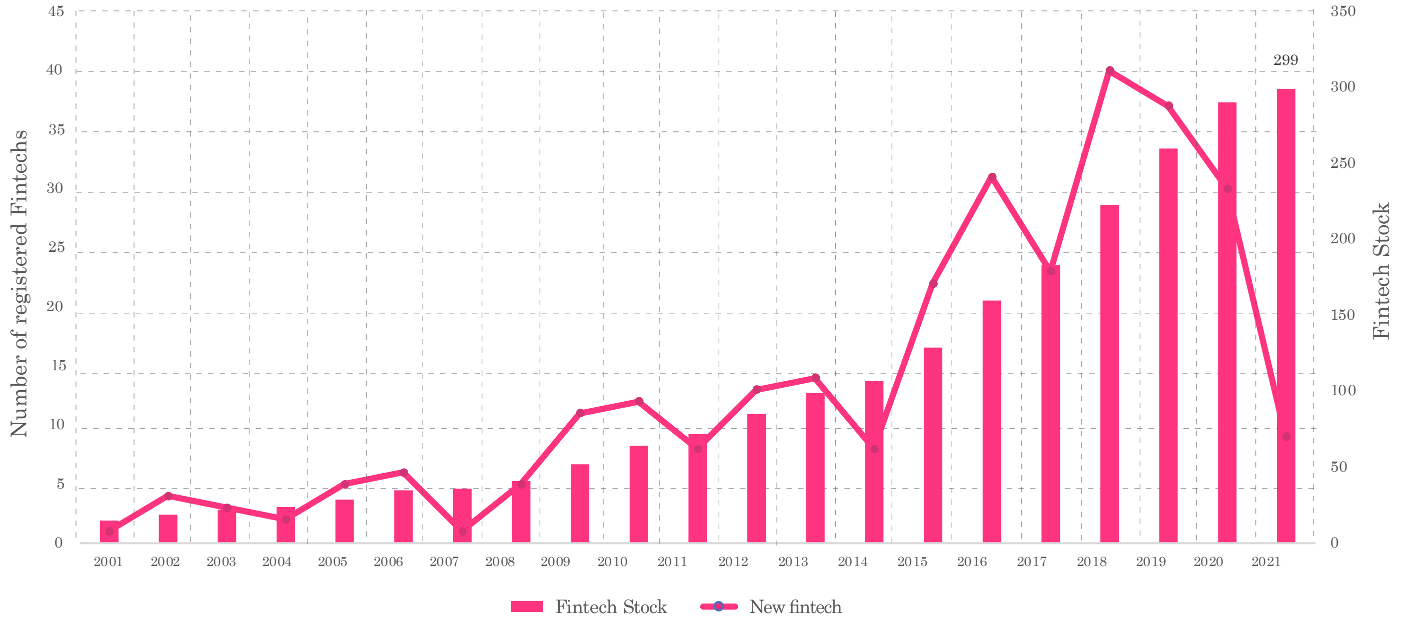

Figure 3. Evolution of the Fintech ecosystem in the period 2000-2021.
Source: Colombia Fintech (2022).

Figura 4 shows a significant growth of Fintechs in the period 2000-2021. This means that this type of business had a greater boom due to the problems of Covid 19, in which users, due to the restrictions of mobilization in the country, turned to digital banking or financial services. In Colombia, in 2010, there were 64 Fintech companies, of which 37.5% were classified as Digital Payments companies, 23.44% as Digital Credit companies, and 17.19% as Business Finance companies. Regtech companies accounted for 10.94%, while PFM & Wealthtech, Crowdfunding, Neobanks, and Insurtech each accounted for 4.69%, 3.13%, and 1.56%, respectively.

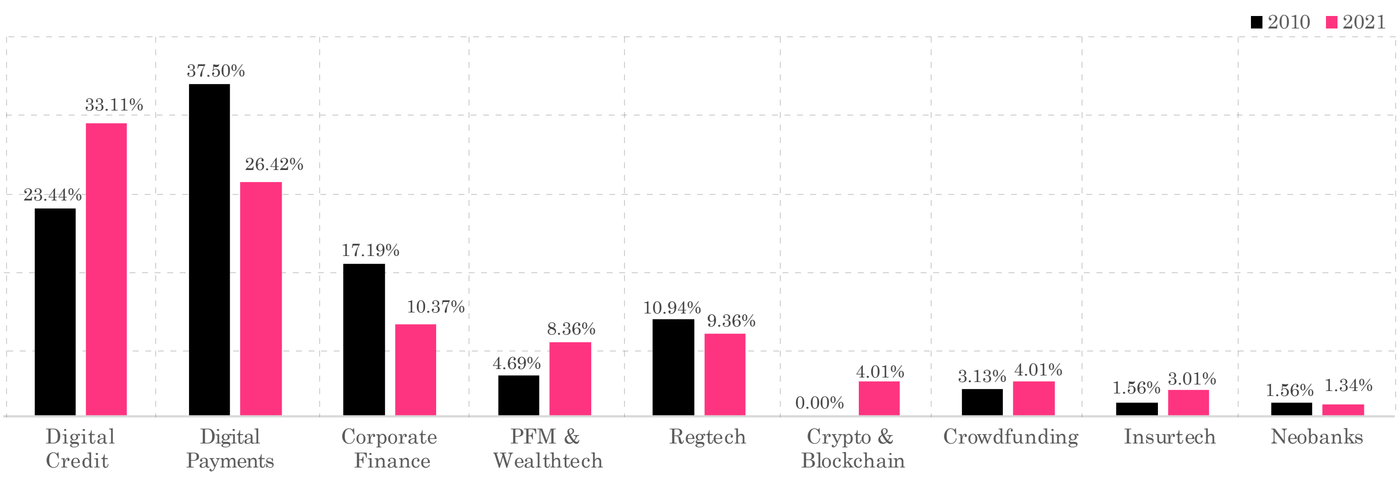

Figure 4. Distribution of Fintech segments.
Source: Colombia Fintech (2022).

In 2021, the distribution of segments in the Fintech ecosystem has undergone significant changes due to the entry of new players (Figura 4). The segments of *Digital Credit* (33.1%), *Digital Payments* (26.42%), and *Business Finance* (10.37%), are the fastest growing. In the case of *Regtech* and *PFM & Wealthtech*, they present a share of 9.36% and 8.36%, respectively.

As for the *Crypto and Blockchain* industry, it ranks sixth with a 4% share, reflecting the growing interest in these technologies and new ways of investing and saving (Figure 4). Finally, the *Crowdfunding*, *Insurtech*, and *Neobanks* segments represent 4%, 3%, and 1.34%, respectively, although they have a lower representa tioninnumber,theyaregrowingthanks toregulatory advances and digital business models.

Financial results show solid growth of the Fintech ecosystem (Figura 5). From 2017 to 2021, the sector's real revenues increased by an average of 27% annually, reaching a record P3.7 trillion in 2021. Although the sector did not escape the effects of the pandemic, 17% of companies in the ecosystem reported a decrease in revenues during the first year of the pandemic (Finnovista, 2021), overall the sector managed to increase its real revenues by 74% in 2021 compared to 2019.

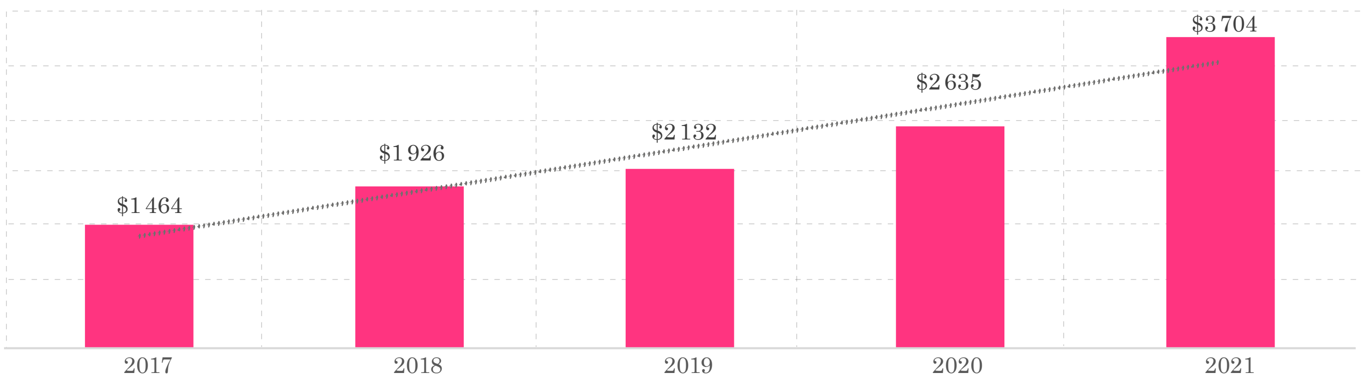

Figure 5. Evolution of real revenues of the Fintech ecosystem. Note: values in billions of pesos. Source: Colombia Fintech (2022).

In this behavior, there was an increase in employment generation in the Fintech ecosystem during the year 2021, compared to the previous year, which was affected by the pandemic (Figura 5). According to Colombia Fintech (2020b), the Fintechs interviewed indicated that their primary customer focus is large companies (28%) and unbanked individuals (28%). This demonstrates the commitment of the Fintech ecosystem to contribute to financial inclusion in the country.

According to Colombia Fintech (2020b), Fintechs in Colombia have implemented a wide variety of technologies as part of their innovation strategies (Figure 6). Currently, 46% of the Fintechs surveyed use technologies such as artificial intelligence and machine learning. However, these companies expect a significantincreasein theuse ofthesetechnologies in thecoming years, reaching a presence of 74% in the Fintech ecosystem.

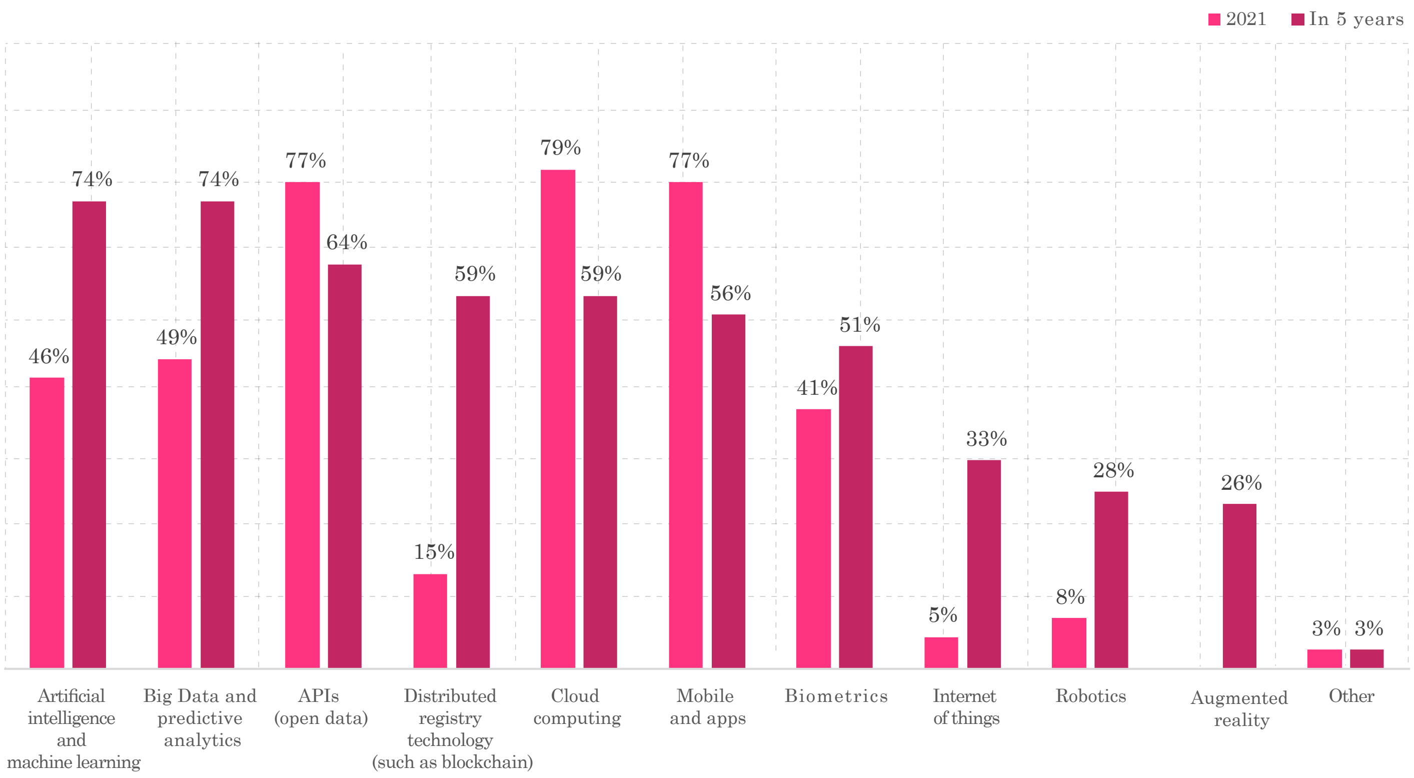

Figure 6. Technologies implemented by Colombian Fintechs .
Source: Colombia Fintech (2022).

Discussion of Results

Technology as a function of financial services has brought with it a new business relationship between users and the financial sector, and with this new business paradigm, financial inclusion is truly made possible. In this sense, Neobanks are more responsive to the needs of customers, regardless of their socioeconomic status and geographic location, and in concomitance with this, they offer better accessibility, convenience, and adaptability for users, strengthening savings, credit, and the capital market. New technologies and innovation are the competitive factors of Neobanks since they allow for agile operations, lower transaction costs, and a more available and accessible portfolio of financial services.

Regarding Covid-19 and its impact on the economic and financial sector, it should be considered that neobanks are characterized by greater agility to meet changing consumer needs, be innovative, and attract them to use alternative sources of lending to many households and small businesses, thereby lessen the expected short-term drop in productivity and economic growth resulting from Covid-19. This pandemic accelerated changes in the financial system, making it necessary to proactively regulate this sector until a new market equilibrium is established (Fu and Mishra, 2022).

Covid19 has generated disruptions within the banking sector, therefore,mostfin ancialtechnologycompaniesareadoptingnew ways of approaching and saving their businesses. The above translates into the need for artificial intelligence to be applied in the function of offering more agile and innovative financial services, more customer-centric and with greater capacity to handle isolation situations in the population, due to the fact that the digital financial service is based on some online platforms to be performed as contactless payments, in the credit evaluation process and in obtaining relevant information for customers. In that sense, financial institutions that can offer or disseminate safe and sound financial offerings may have an advantage over others.

In the face of the pandemic crisis, companies and societies must adopt the —social distancing—, taking advantagesin of the global market,those organizations thatenable greater communication with customers and a better relationship for such financial services to be collaborative with households and small businesses to achieve the mitigation of those adverse effects of socioeconomic type derived from the Covid 19 or post pandemic allowing some critical aspects of daily life to continue as normal (Nair, Veeragandham, Pamnani, Prasad and Guruprasad, 2021).

Mobile app-based financial services intuitively provide an attractive option for accessing financial services, particularly during a pandemic, given its own or government-imposed restrictions on social distancing measures, and in that sense, the Fintech market generally provides greater flexibility to quickly deploy new products and services or better adapt to crisis circumstances due to the pandemic (Fu and Mishra, 2020).

In Colombia, the digital ecosystem is still in the process of maturing, due tothe slow connectivity andlackofdigital literacy in the country, and this is reflected in the FinTech, in which, it is highlighted that, in the country, there is availability for new companies, platforms, technologies, and solutions that allow greater interaction of users with the financial sector, and its significant influence in favor of the national economy, reducing the digital divide and inequality. However, in Colombia, there are still barriers that hinder financial accessibility, commonly referred to as financial exclusion, and in which the problems of access to banking are mentioned, such as financial costs, knowledge of banking services, geographic location, time of attention, service guarantee and security, among others.

In line with the aforementioned problems, it is important to consider the performance of FinTech in terms of overcoming the barriers to financial accessibility, noting how these new digital technologies play a fundamental role in each entry barrier to the financial sector, where digital payments, machine learning, blockchain, big data, chatbots, biometrics, and games, among others, are validated in order to significantly reduce the barriers that prevent many users in the country from accessing financial services.

It is considered that these offers of digital financial services by the Neobanks, in terms of accessibility, agility, and quality throughout the Colombian territory, become a powerful value proposition for the improvement of rural areas and empowering the most vulnerable communities. In addition, this overcoming of barriers in access to these services in the country and making greater access to population segments, which had not been taken into account by traditional banking, becomes a greater fundraising for the banking sector, which makes it possible to generate better capital conditions for the investment of the banking sector and the granting of loans to SMEs.

The adoption of digital finance has contributed significantly to many Colombian households and businesses in the face of the adverse socio-economic effects of the pandemic. This accelerated and massive adoption of the digital economy is considered to have important implications for market equilibrium as this technology in the banking sector in times of pandemic facilitates online payments and transactions, considering the social distancing norms and associated blockages.

Financial inclusion takes on greater relevance during Covid19, giving greater scope for Neobanks to increase their clientele. The spread of the pandemic globally and government shutdowns nationally have led to significant increases in the adoption of finance-related mobile applications, either in relative or absolute per capita terms. This increased technology adoption is driven by the increased acceptance of digital services conditioning their growth over time compared to traditional banking applications.

Globally, FinTechs make Neobanks competitive with traditional banks in terms of price, service, coverage, and security, and this differentiation is increasingly valued by customers: By making effective use of digital technologies, these entities improve their financial operations and achieve significant growth in the medium term because their products are more innovative and increasingly popular in the market.

These companies respond quickly to economic challenges and develop creative consumer goods and services. According to Colombia Fintech (2022) several positive aspects of these companies in the country are highlighted, such as the increase in the adoption of financial technology, the improvement in financial inclusion, and the increase in investment in this sector. However, some challenges are also mentioned, such as the lack of regulation and limited access to capital for these companies.

One of the highlights of this report is the increase in the adoption of financial technology by Colombians. It is reported that 68%of the adult population in Colombia has a bank account, while 30% use digital financial services. This suggests that these companies have managed to reach a significant part of the population that previously did not have access to financial services. In addition, it is mentioned that the pandemic has accelerated this trend, as people have sought digital alternatives to perform financial transactions in an environment of social distancing (Colombia Fintech, 2022).

Another relevant aspect of the report is the increase in investment in the Fintech sector. According to the data presented, in the first quarter of 2021, there was a 54% increase in investment in the Fintech sector in Colombia compared to the same period of the previous year (Colombia Fintech, 2022). This suggests that the sector is attractive to investors, which could lead to further growth and development in the future. However, there are some challenges facing the sector, such as the lack of regulation. Although progress has been made in regulatory matters for Fintech companies, more clarity and stability are still needed in this aspect. In addition, it is mentioned how limited access to capital continues to be a challenge for Fintech companies in Colombia.

The impact of Fintechs on the Colombian economy has been significant because these entities have managed to increase financial inclusion in the country, offering innovative and accessible solutions for individuals and companies that previously had difficulty accessing traditional financial services. In Colombia, Fintechs have gained ground in areas such as online lending, mobile payments, mobile banking, and international money transfers, among others.

In addition, many of these entities have been able to reduce the prices of the services they offer, which has allowed users to access them at more competitive prices. In addition, Fintechs have been a source of innovation in the Colombian economy, helping to boost the digital economy in Colombia by improving financial inclusion and job creation, which has been fundamental in the Covid-19 period, as many Colombians have had to resort to online services due to mobility restrictions.

Conclusions

In the Colombian banking sector, Neobanks have been disruptive because they have contributed significantly to change the banking experience of customers, and their evolution makes predict how the banking of the future will be. New digital technologies in the banking sector could be a complement to traditional banking products. However, the business model of Neobanks has focused on the customer, by establishing agile services, innovative products, and processes with lower costs than the usual ones of traditional banking. This irruption of FinTech has overcome certain barriers in the access to financial servicesin Colombia, favoringfinancial inclusion for sectorsthat have been marginalized by traditional banking.

Neobanks benefit significantly by incorporating FinTech solutions into their operations because they can expand the market without incurring additional risks and to be more aware of the particular needs of their clients. The greater the channeling of monetary resources from the public to the Neobanks, the greater their contribution to the national economy, since there is more room for capital maneuver in the banking sector for granting investment loans to SMEs and entrepreneurs, thus achieving a favorable impact on the country's economic reactivation in the long term.

Regarding the Covid19 crisis within the global financial context, this situation has rapidly boosted the business model of Neobanks and Fintechs in most countries of the world, since their banking services supported by new technologies are collaborative withgreater financial inclusion world wide, without reducing the security system for users.

It should also be considered that educational, regulatory, and cultural aspects at the global level should be taken into account to consolidate them, and in the clarity that their success in emerging countries depends in part on the fact that there is a more efficient tax structure in the telecommunications sector, to achieve better access to equipment and services, allowing all users to access the benefits of the connection and the solution.

The results of the Colombia Fintech 2022 economic report highlight the positive impact that Fintech companies have had on financial inclusion in the country. However, it also points out some challenges that need to be addressed to enable sustainable growth in the sector, such as the need for clear and stable regulation and access to capital.

Statement of Authorship

Pérez-Vásquez: Conceptualization, research, original draft-writing, project management.
Prieto-Baldovino: Formalanalysis,resources,writing-revision and editing, visualization.
Diaz-Pertuz: Validation, supervision.
Noboa-Silva: Methodology, software, data curation.

Financing

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Conflict of Interest Statement

For the authors, this work does not represent any conflict of interest. It did not require the endorsement of an Ethics or Bioethics Committee since it did not use any living resource, agent, biological sample, or personal data that represent any risk to life, the environment, or human rights.

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