DATA NUBANK #6

financial inclusion

access that brings transformation

NUBANK PRESENTS A DETAILED PICTURE OF HOW FINANCIAL INCLUSION HAS CREATED OPPORTUNITIES FOR ITS CUSTOMERS

Data Nubank

Data Nubank is Nubank's financial research and analysis platform, one of the world's largest digital platforms for financial services. Our mission is to provide reliable and relevant information objectively and transparently to facilitate the understanding of subjects related to the finance of Brazilians through exclusive data based on internal surveys.

In this sixth edition, we will show how important people's financial inclusion and education is and the role Nubank plays in this process. We have made a portrait of those who have accessed credit products and services for the first time and who have taken their first steps in the world of investment with the help of Nubank.

Expediente

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CHAPTER ONE

objectives

1

To present the impact caused by Nubank on the financial inclusion of Brazilians based on the profile of customers who accessed financial services and products for the first time via Nubank.

2

To contribute, with data, to the **public debate on inclusion and financial resilience** and the role financial institutions play in this scenario.

In order to do that, we have analyzed the spending and investment profile of those customers who obtained their first credit card, first loan, and made their first investment with Nubank.

It is important to point out that customers' data used in this study have always been seen collectively, never individually, in accordance with the General Data Protection Law (Lei Geral de Proteção de Dados – LGPD)

introduction

CHAPTER TWO

Using a credit card, taking out a loan, taking out a personal loan, having options to save and invest money.

These financial products and services seem basic to many people, but the reality of part of the population is very different.

According to the data provided by the *2021 Financial Citizenship Report*, from the Central Bank of Brazil, 96% of the adult population over the age of 15 years old have some kind of relationship with the National Financial System (Sistema Financeiro Nacional - SFN) – that is, these people have accounts, either at banks or payment institutions, some financial assets held or administered by banks, brokerage houses, credit cooperatives, credit institutions, or capital markets.

On the other hand, only 50% of these people had access to some credit operation until the end of 2020. The smaller the income, the more limited the access is. According to the Central Bank, 50% of the people who received up to half of the minimum wage monthly held only 12% of the bank credit portfolio in 2020.

These numbers prove that having access to banks is not synonym with inclusion. That is, the mere fact that a person has a bank account or some sort of relationship with an institution does not represent access to financial products and services.

To the Central Bank, financial inclusion is one of the pillars of what it considers to be “financial citizenship.” This concept further includes financial education, consumer protection, and participation of people in the debates about how the financial system works.

WHAT IS FINANCIAL INCLUSION?

The Central Bank states that financial inclusion is a state in which all adults have effective access to credit, savings accounts, insurances, financial pension plans, and investments, a concept which is very similar to that of the World Bank.

The global institution defines financial inclusion as the access to “useful financial products and services, delivered in a responsible and sustainable way.”

In other words, despite the fact that Brazil has progressed in terms of access to banks, the journey to financial inclusion is still a long one. *Research from the Centre for Economics and Business Research (CEBR)* for the Principal Financial Group ranks Brazil on the 35th position among the 42 researched countries.

This study and others show that financial inclusion is only possible if there is a set of public and private initiatives in place. These efforts have a purpose; they generate an immediate impact on the lives of individuals and, consequently, on the economic system.

THE IMPACT OF FINANCIAL INCLUSION ON THE ECONOMY

According to the United Nations (UN), healthy and responsible access to financial products and services expedites progress and fights global challenges such as social inequalities, hunger, increase in productivity and competitiveness in the labor market and even climate-related issues.

It is no coincidence that financial inclusion is considered an essential element in seven of the 17 Sustainable Development Objectives *(ODS)* for 2030:

ODS 1. End of poverty

ODS 2. End of hunger and sustainable agriculture

ODS 3. Health and well-being

ODS 5. Gender equality

ODS 8. Decent jobs and economic growth

ODS 9. Industry, innovation, and infrastructure

ODS 10. Reduction of inequalities

According to the UN, to eradicate poverty and end hunger, for example, it is imperative that everybody have access to financial services. It is essential to include protection from "financial risk" in order to make health and well-being available to everyone. Another example: to achieve goal 8 (Decent job and economic growth), UN established that one of the ways is to “strengthen the capacity of national financial institutions to encourage the expansion of the access to bank, insurance, and financial services to everyone.”

It is undeniable, therefore, that financial inclusion is the essential path to economic development and growth. In Brazil, financial inclusion has been one of the pillars of the Central Bank initiatives since the 1990s and, as of 2010, the entity placed the "*promotion of financial inclusion*" among its strategic objectives and as an essential element to insure the solidity and efficiency of the financial system.

In order to create effective measures, the Central Bank mapped out the subject throughout the country and released the *Financial Inclusion Report*, considered by the institution as the first step towards promoting inclusion. The results showed that the road to total inclusion would be long.

In December 2010, around 115 million of Individual Taxpayer Registries (CPFs) had some sort of relationship with the National Financial System, out of 193 million inhabitants in that year. However, year after year, there was a reduction in the participation of people with up to R$ 5,000 in income for the total volume of credit given in the country: from 37.33%, in June 2006, to 27.34% in June 2010. In that month, each adult in the country had around four credit operations (3.847) with amounts below R$ 5,000.

NUBANK'S ROLE

Nubank was born in 2013, in this context, with the mission of reducing the complexity of the financial system and ensuring access to products and services that help people have control over their own money.

potential of the Brazilian market to transform its relationship with financial services through technology. We soon noticed that millions of people were invisible to the traditional system, not necessarily because they were "bad customers." Due to the complexity of the system, many times they could not even build a credit history.

Nubank believes that access to credit is a catalyst for people's empowerment. It is through it that people can dream and make plans again.

With Nubank's growth in Brazil in these last ten years–in January 2023 we reached more than 70 million customers in 100% of the country's municipalities–, we have realized the potential of our impact.

This study aims to understand the "purple effect" on the financial inclusion as well as the profile of those who accessed financial products and services for the first time with us.

About the study

PERIOD OF ANALYSIS

The analyzes about credit card and personal loans were conducted for the periods starting in **July 2021 and finishing in July 2022.** The compiled data on investments were collected in October 2022.

BASIS OF THE ANALYSIS

Nubank customers who have a credit card and/or took out a personal loan. Customers who acquired their first credit card with Nubank may or may not have taken their first loan with Nubank.

To find data on investments, a survey with **7 thousand costumers who invest with Nubank was conducted.** The sample of the survey was selected randomly and has characteristics and behaviors that replicate in the same proportion the characteristics and behaviors of the customers that invest with Nubank.

Highlights

1. FIRST ACCESS TO CREDIT

5.7 million

people without any history of credit received their **first credit card** with some limit approved by Nubank between July 2021 and July 2022.

2.5 million

customers took out their first personal loan with Nubank between July 2021 and July 2022.

2. NO INCREASE IN INDEBTEDNESS

Access to credit card among customers included by Nubank **did not lead to an increase in credit card indebtedness,** which remained stable and below market levels in the period of the analysis.

5,3%

in the 4th quarter of 2022

That was **the default rate** in the payment of credit cards at Nubank. The most recent data from the Central Bank show that this rate closed at 7.8% in December 2022.

3. FIRST INVESTMENT

55.4% of customers that have some amount invested **started investing and saving money through Nubank.**

4. WOMEN LEAD INCLUSION

Out of the all the customers who informed their gender, women represent the largest part of the public who received their first access to credit and started to invest with Nubank:

44.5% of the people who received their **first card.**

43.5% of those who took out their **first loan.**

41.2% of the people who **saved money or started to invest** for the first time.

5. INCLUSION IS BIGGER AMONG THOSE WHO EARN LESS

Customers with income **up to R$ 2,500** represent the majority of those who made their first access to Nubank's financial products and services:

1st card

80.9% have an income of up to R$ 2,500.

1st personal loan

54,5% earn up to R$ 2,500.

1st investment

And among those who started to save money and invest, 56.2% are in this income bracket.

6. SOUTHEAST AND NORTHEAST REGIONS ARE THE HIGHLIGHTS

A large part of the customers who accessed financial products for the first time comes from **these regions of the country.**

1st card

37.4% are from the Southeast and 31.4% from the Northeast regions.

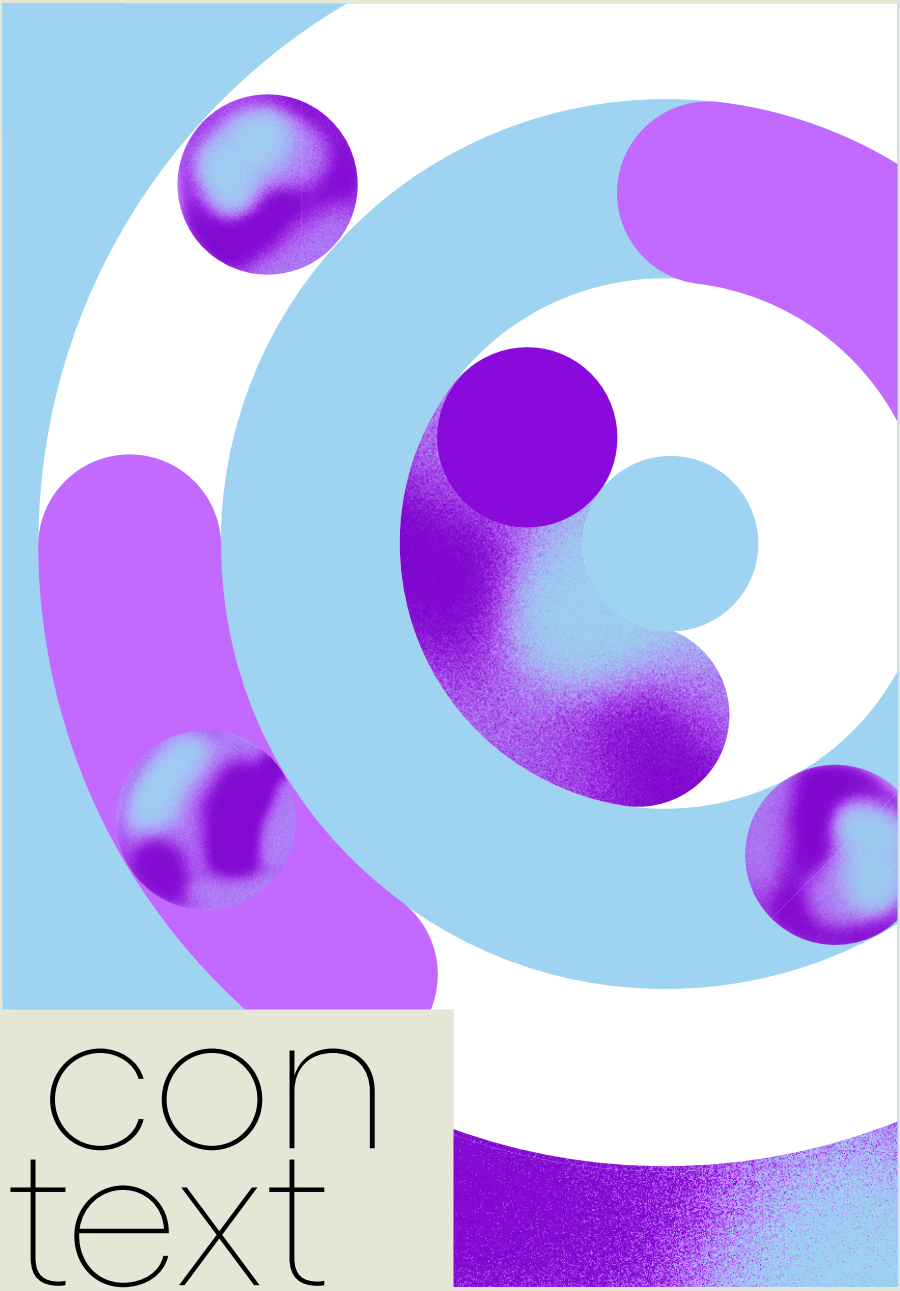
1st personal loan

42.2% are from the Southeast and 25.2% from the Northeast regions.

1st investment

44.4% are from the Southeast region and 23% from the Northeast region.

CHAPTER THREE



context

Financial inclusion promotes reduction of the country's social inequalities and fosters economic development through a virtuous cycle.

The Central Bank states that: "the proper expansion of financial inclusion makes the access to formal economy possible, contributing to greater economic growth, which, in turn, facilitates access of more people to the economy and financial system, mobilizing savings and investments to foster the growth of the productive sector."

This virtuous cycle begins with access to banking, which is basically the opening of accounts that enables the beginning of a relationship between citizens and financial institutions. Throughout the years banking has taken a leap.

Since 2005, when the data were made available by the Central Bank, the number of Individual Taxpayer Registries (CPFs) with some kind of relationship with the *National Financial System* (SFN) increased at a rate that did not surpass 5% most of the time.

However, in 2020, the increase was of almost 9%. The reason, according to the Central Bank, was the pandemic, more specifically the opening of digital accounts for workers who received the Emergency Aid. In the first edition of Data Nubank, it is possible to understand in detail the impact of this measure on the financial life of Brazilians. *Access here.*

Check the following infographic to learn more about the relationship between people and the financial institutions by year as of 2005.

MONTH/YEAR	NUMBER OF INDIVIDUAL TAXPAYER REGISTRIES (CPF)	GROWTH %
Jul/2005[1]	85,104,241	-
Dez/2005	87,690,473	3.0
Dez/2006	92,787,724	5.8
Dez/2007	98,197,077	5.8
Dez/2008	104,668,104	6.6
Dez/2009	109,844,793	4.9
Dez/2010	115,273,414	4.9
Dez/2011	121,344,029	5.2
Dez/2012	127,579,960	5.1
Dez/2013	133,683,083	4.7
Dez/2014	138,619,336	3.7
Dez/2015	143,619,233	3.6
Dez/2016	146,936,912	2.3
Dez/2017	153,921,085	4.7
Dez/2018	158,364,168	2.8
Dez/2019	164,660,550	3.9
Dez/2020	178,922,039	8.6
Dez/2021	182,218,055	1.8
Dez/2022	183,355,742	0.62

Source: Central Bank of Brazil | **1.** first data available

CPFs

Number of people with current relationships with the National Financial System, counted only once, even if they have relationships with more than one institution.

Relationships with the National Financial System

Active relationships mean some type of **connection (an open account, for example) that one person has with institutions authorized by the Central Bank** to operate, such as banks, payment institutions, credit cooperatives, brokers, consortium administrators, Stock Exchange, insurance companies, pension funds, and other authorized institutions.

THE INCLUSION IS DIGITAL, BUT IT IS NOT FOR EVERYONE

Not long ago, financial inclusion meant necessarily access to physical service points, such as bank branches, service points, and ATMs.

Increasing the number of these channels was one of the first measures adopted to foster inclusion, and correspondent banks were the basis of this action.

Correspondent banks are partnerships between a commercial establishment, such as lottery retailers, post offices, or drugstores, and a financial institution. Once this partnership is established, the establishment can offer financial services. Correspondent banks appeared in Brazil in 2000 with Resolutions 2640 and 2707 of the National Monetary Council (Conselho Monetário Nacional - CMN), which enabled bank institutions to hire commercial establishments. In 2003, Resolution 3156 extended this permission to other financial institutions.

In 2000, there were around 20 thousand correspondent banks. Today they are more than 210,000. Despite the decrease in number of bank branches and electronic service sites, the quantity of some brick-and-mortar channels, such as bank correspondents, has increased, according to data from the Central Bank. With this, Brazil has at least one service channel in each of the country's cities.

TABLE 2

Number of service channels

SERVICE CHANNELS	2018	2019	2020
Bank branches	21,184	20,308	18,901
Service sites	15,898	17,201	18,050
Electronic sites	30,650	30,533	28,682
Bank correspondents	188,359	198,406	210,639
Total of service sites	**256,091**	**266,448**	**276,272**

Source: Central Bank of Brazil

With the digitalization of financial relationships, the need for a brick-and-mortar point may seem questionable. However, the reality is that this digitalization has not reached everyone yet because access to the Internet is still not available to 100% of Brazilian households.

In the detail, lower classes have more access difficulties. In 2021, 98% of Class A and 96% of Class B members declared they were Internet users. This percentage drops to 89% among those in Class C and to 72% in Classes D and E, according to *Research on the Use of Information Technologies and Communication in the Brazilian Households*, from the Brazilian Internet Steering Committee (Comitê de Gestão da Internet no Brasil - CGI.br).

Whenever the access is done for consultation, payment, or other financial transaction purposes, the discrepancy is even bigger: 95% of Class A and 72% of class B members access the Internet for these purposes. The percentages drop to 45% among people from Class C and to 21% among members of Classes D and E.

Despite that, if we compare this research to the first conducted *in 2005*, the access growth was exponential. That year, 85.57% of Class A and 63.31% of class B members said they had accessed the Internet less than three months before. Among those in class C, the number was 27.4% and only 7.65% among D and E members. Financial activities did not even appear as a reason for access. In 2005, the digital financial market was still far from becoming a reality.

NUBANK IN THIS CONTEXT

Nubank was born in 2013, when access to the Internet was already a reality for a great portion of the population, but its use for financial purposes was still very much limited to the upper classes.

The *study conducted by the Brazilian Internet Steering Committee* (CGI.br) in 2013 showed that: 54% of class A individuals already used the Internet for consultations, payments, and other transactions; 34% of class B did the same. However, only 15% of class C and 5% of classes D and E used the Internet with the same purpose.

This difficulty to access the Internet limited the inclusion of lower income population to financial services. However, it was not only that. Tools that ensured access to some credit, such as cards, were not products for everyone.

Research conducted by the Brazilian Association of Credit Cards and Service Companies (Abecs) in 11 metropolitan regions in the country, and created by Tendências Consultoria in 2009 showed that people who had and used credit and debit cards in that year belonged to upper classes.

TABLE 3

Ownership of financial items by income class (2009)

OWNERSHIP OF CARDS (% OF THE POPULATION)	A/B	C	D	TOTAL
Card	81%	64%	36%	**67%**
Credit	61%	38%	20%	**45%**
Debit	70%	49%	19%	**53%**
Bank account	82%	64%	33%	**67%**

Source: Abecs Research / Elaboration: Tendencies

In 2013, the scenario had changed very little. At the end of that year, 161 million of cards had been issued; however, only 81 million were active (being actually used) according to *data* from the Central Bank. One *study* from 2013, also carried out by Abecs along with the Datafolha institute, showed that the cards continued to be on the hands of those with higher income: 90% of class A and B had credit and debit cards. In classes D and E, this percentage decreased to 42%.

When Nubank entered the market, it wanted not only to change this reality, but also to make sure that people would have access to quality financial products and services, without bureaucracy, and which would help them have control over their own money.

FINANCIAL INCLUSION AT NUBANK

According to research conducted by *BSD Consulting/ELEVATE*, and ordered by Nubank, in 2021, this goal had been achieved.

The research concludes that “Nubank had a significant impact on both the access to financial services as well as on the financial education of its customers.”

See some of the findings of this research based on a sample of 35 million customers, the number of customers Nubank had until May 2021:

11%

of the 35 million customers said that they had their **first access to financial services through Nubank.** Altogether they are almost 4 million people.

67%

said that they had **acquired greater financial independence** through the **services provided by Nubank.**

72%

said that they had **managed to save money** and, out of those, 67% said that **Nubank services had contributed to that.**

77%

stated that **Nubank had positively impacted** their financial lives.

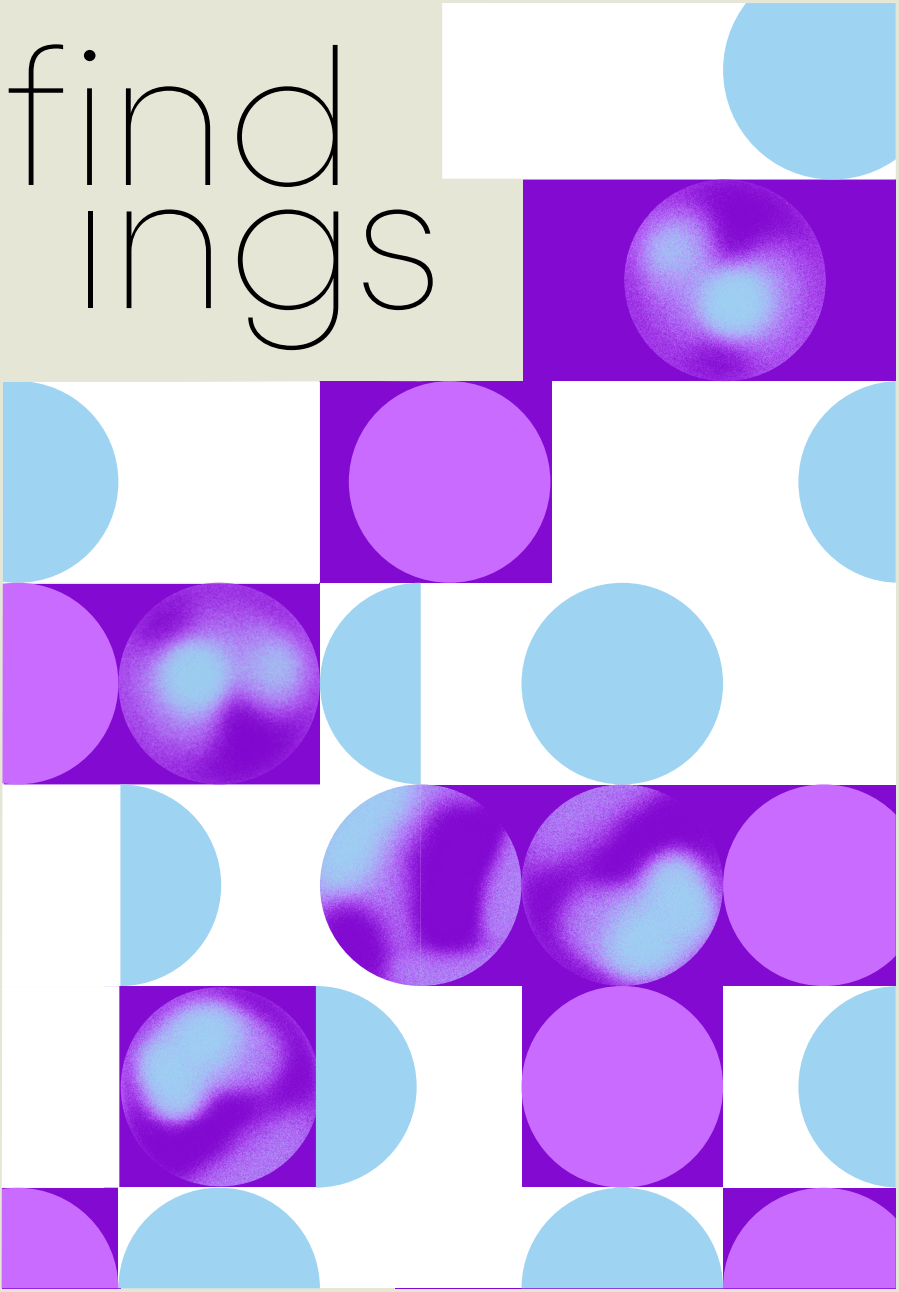
Click here to see the complete research and check all the findings about the impact of Nubank on people’s lives.

For Nubank, financial inclusion involves seven elements:

1. Access to financial products and services
2. Financial control and independence
3. Financial resilience
4. Capacity to make payments and purchase merchandise
5. Savings and investments
6. Financial goals
7. Financial education

In the following section, we introduce data that show how Nubank promotes each element of financial inclusion in practical terms, according to the analysis of our customers' compiled data.

findings



CHAPTER FOUR

Serving the groups that need inclusion the most is as important as inclusion itself.

In the case of Nubank's customers, women, people with low income (with a total family income of up to three minimum wages), people between 18 and 30 years of age, and those who live in the Southeast and Northeast regions lead the inclusion promoted by Nubank in the period of the analysis.

This profile refers to the reality of those who still have not been included in the country. The *Report on Financial Citizenship from the Central Bank*, 2021, shows that there is some sort of balance between men and women in the National Financial System (SFN). However, men still have a higher average of relationship with financial institutions: 4.6 relationships versus 4.2 of women.

"In addition, there is a great disproportion between the genders in terms of relationship with FIs [financial institutions] in the capital market (71% of men). In terms of the relationship between young people and the cooperatives, men (55%) are also represented in greater proportion than women," according to the Central Bank report.

And it is the Northeast region that presents the worst levels in the Financial Citizenship Index (ICF – Índice de Cidadania Financeira), also informed by the Central Bank. ICF takes into account factors such as quantity of service points, percentage of the population with access to the Internet, percentage of adults with relationships with banks and with credit, among others.

In 2021, the Northeast region ICF varied from 18.8 points (Maranhão) to 46.6 (Sergipe), depending on the state. ICF ranges from 0 to 100 – the closer to 100, the better the situation in the state.

The profile of the financially excluded in Brazil is also aligned with what we see in other parts of the world. According to *Global Findex, 2021,* the study the World Bank conducted on financial inclusion and digital payment means, "the gender difference in terms of access to finance has decreased, but still exists. Women, along with the poor, are more prone to not having identification or mobile phone, to living far from a bank branch, and to requiring support to open and effectively using a financial account."

The study shows that around the world 78% of men and 74% of women have an account – a gender difference of

about 4 percentage points. Developing economies (a group that includes Brazil) have the greater average difference, 6 percentage points: 74% of men and 68% of women have an account.

In addition to representing the greatest portion of unbanked, women are also behind when the analysis is about access opportunities. The *research conducted by CEBR* (Centre for Economics and Business Research) for the Principal Financial Group showed that 46% of women say they have enough access to loan products. Among men, the percentage is higher: 64%. In terms of investment, the difference is more or less the same: 66% of men said they have access to this type of product and 49% of women gave the same answer.

That is, our analysis showed that Nubank included a profile that represents a large portion of the excluded not only in Brazil, but in the world as well. Learn more about this below.

ACCESS TO FINANCIAL PRODUCTS AND SERVICES

As we stated, having access to financial services and products is part of the financial inclusion.

And the offer of responsible credit, through credit cards and personal loans, is one of the first steps towards inserting the population into the financial system.

In order to do that, we evaluated the profile of customers that joined our credit card base and/or who took out a personal loan between July 2021 and July 2022. In this period, considering the people who joined the base, we noticed that **5.7 million of them who did not have any credit history received a credit card with a limit approved by Nubank, and 2.5 million took out their first personal loan with us.**

Next we give further information on the profile of those included in these products.

CREDIT CARD

In order to establish that the customer who joined Nubank's credit card base did not have a credit history,

we analyzed the data in the Credit Information System (Sistema de Informações de Crédito – SCR) of the Brazilian Central Bank for a period of six months prior to the request of a credit card. If the customer had not had a credit relationship in accordance with the information below during the period analyzed, we considered that they had acquired their first credit card with Nubank.

Definition of the modalities considered for analysis:

1304 Credit card: purchases in cash or in store installments

1904 Credit cards: limits contracted and not used in credit cards

0204 Revolving credit linked to credit cards

0210 Credit card: purchase bill in installments or withdrawals financed by the card-issuing institution

0218 Non-migrated credit cards

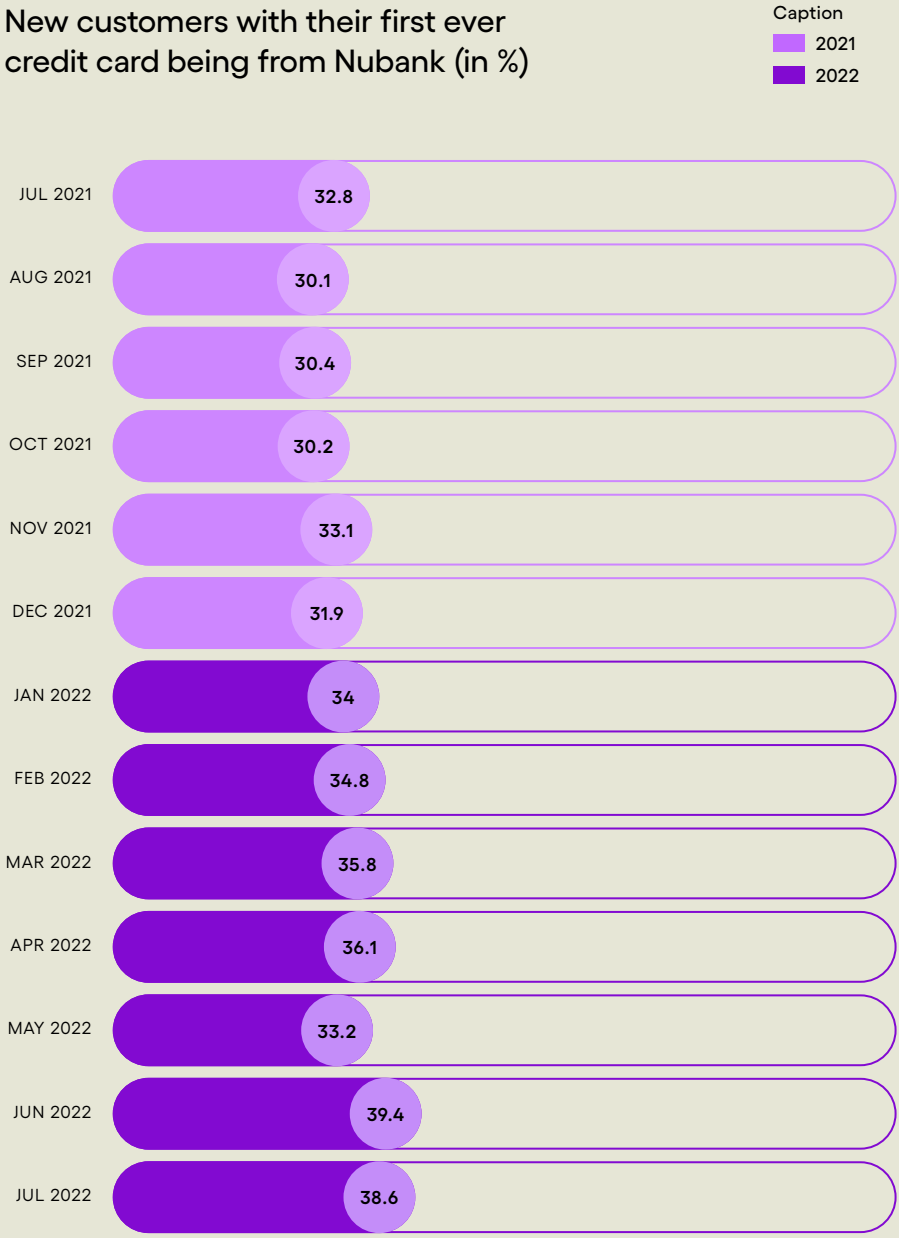
0303 Prepayments of credit card bill

That said, we found out that in the period between July 2021 and July 2022, 5.7 million people without any credit history received a credit card from Nubank.

In this period, more than 103 million of credit cards were issued in the country, of which a few more than 44.6 were active, according to *data of the Central Bank*. That is, the quantity of credit cards issued by Nubank to people without credit card history represents 4.33% of the total of credit cards issued and 12.78% of the cards active in the country between July 2021 and the end of June 2022.

Graph 1 shows that June and July 2022 were the months in which most people received their first credit card from Nubank in relation to the total customer base with a Nu card. This representativity increased throughout time: in July 2021, the included people were 32.79% of the total of customers that joined our card base. In July 2022, this number grew to 38.58%. This increase shows that there was evolution in terms of the inclusion promoted by Nubank.

New customers with their first ever credit card being from Nubank (in %)



WOMEN REPRESENT THE BIGGEST PORTION OF THOSE WHO RECEIVED THEIR FIRST CREDIT CARD FROM NUBANK

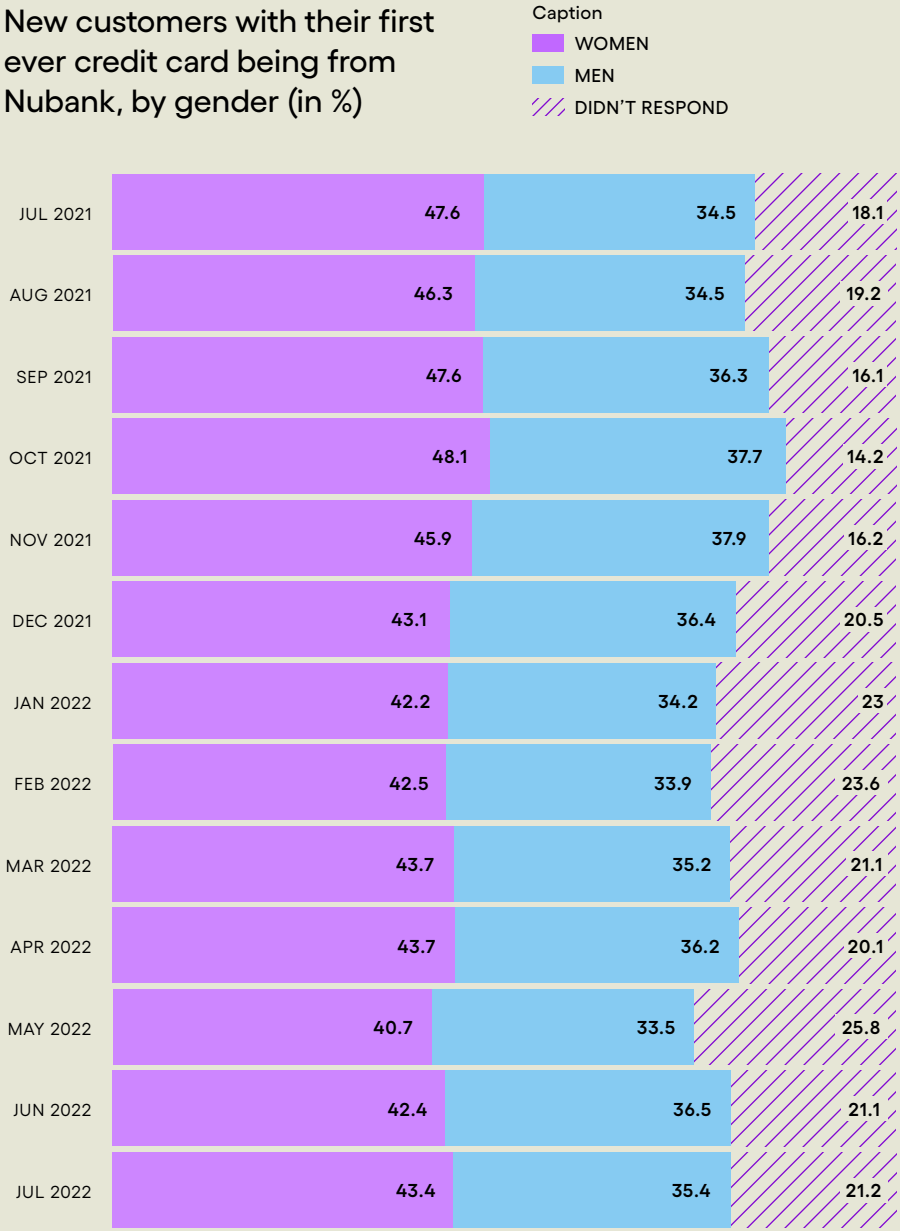
When asked about the gender with which they identified,

people who received their first credit card from Nubank answered that they were, mostly, women (44.4%). Men were 35.5% and 20% did not provide this data.

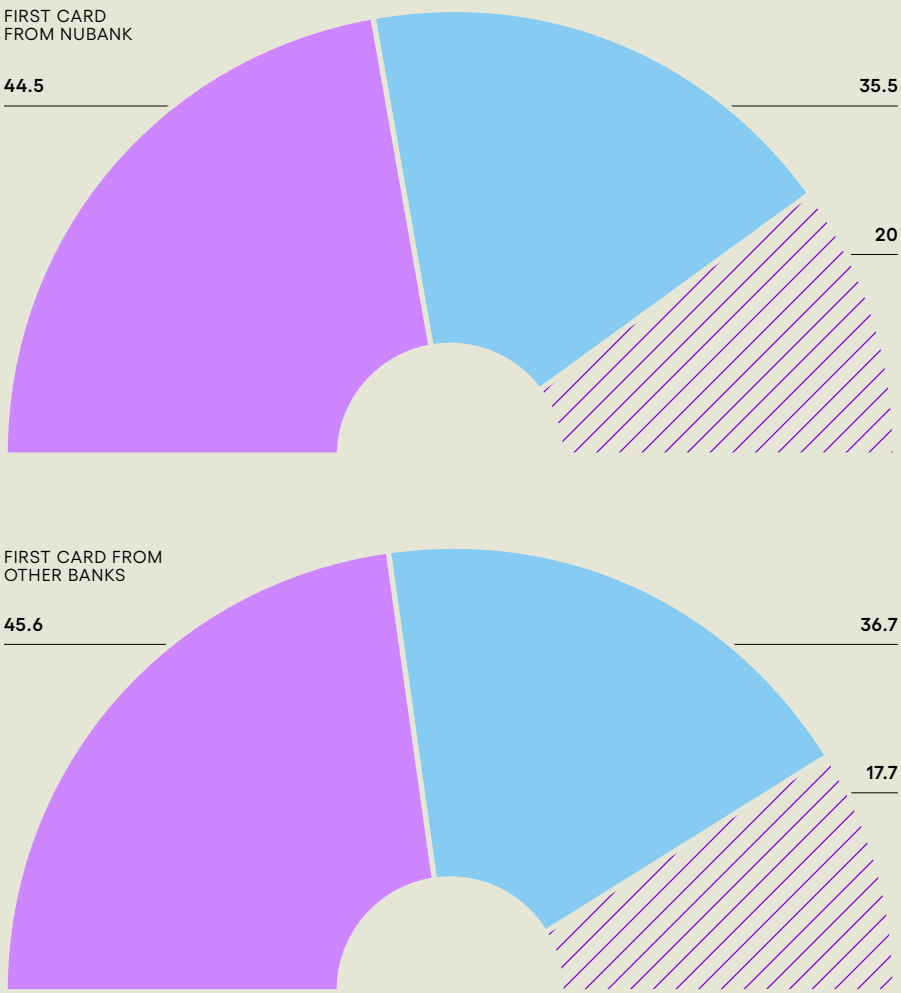
See gender distribution in **Graph 2**. Throughout the period of analysis, this distribution did not present significant variance, which shows consistency in the inclusion of women.

When comparing the gender profile of the people included with the profile of customers who already had a credit card from other institutions, it is possible to see that the difference is not very significant, as shown in **Graph 3** – we should remember that here a portion of people did not inform this data.

New customers with their first ever credit card being from Nubank, by gender (in %)



Distribution among customers who received their first credit card from Nubank and other customers who already had credit cards from other institutions, by gender (in %)

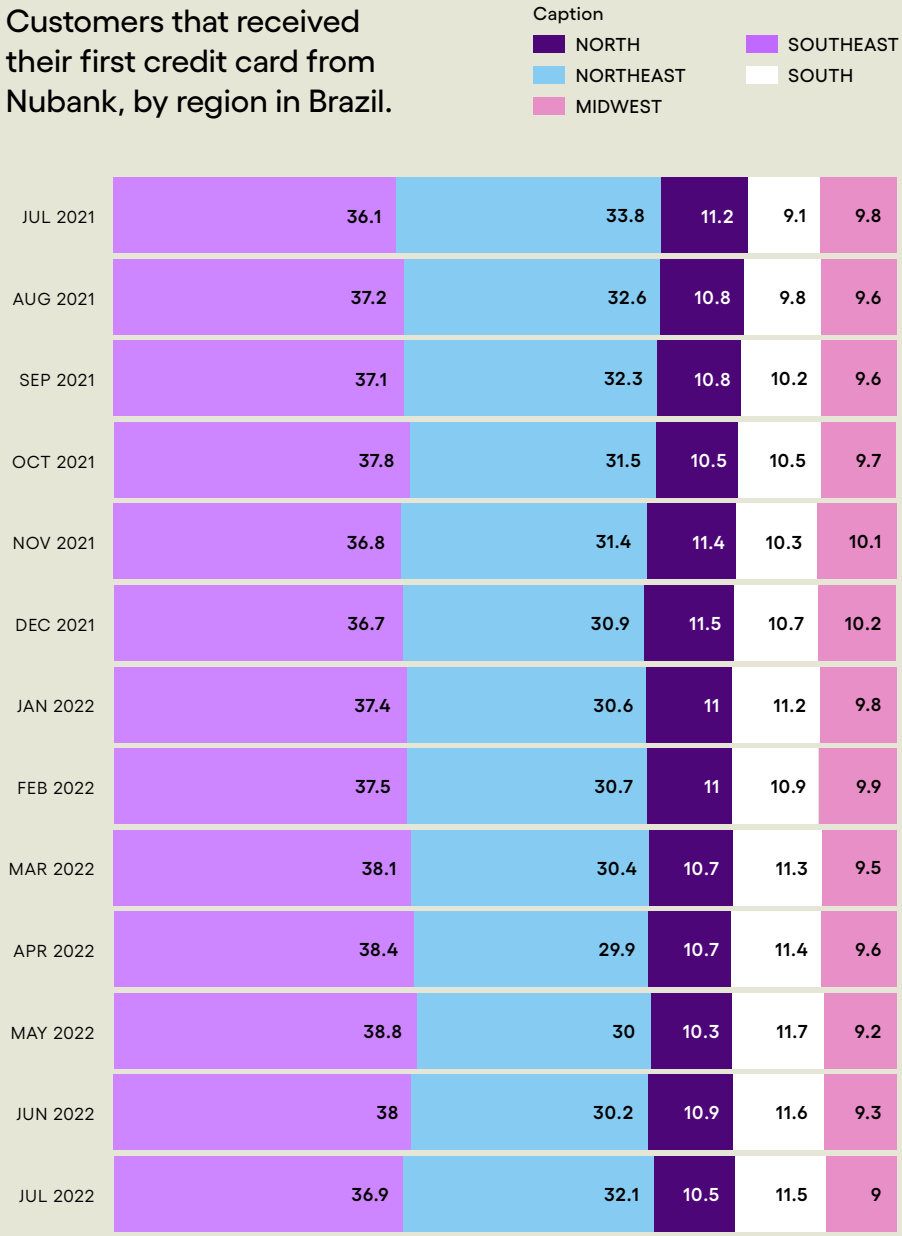


THE PEOPLE INCLUDED BY NUBANK ARE MOSTLY LOCATED IN THE SOUTHEAST AND NORTHEAST REGIONS

A large portion of the people included by Nubank through credit cards are concentrated in the Southeast region (37.4%) and Northeast region (31.4%).

In **Graph 4**, it is possible to see the participation of the regions month to month. When we consider the profile of the financial excluded, we notice that Nubank is present in the most underserved region, the Northeast.

Customers that received their first credit card from Nubank, by region in Brazil.

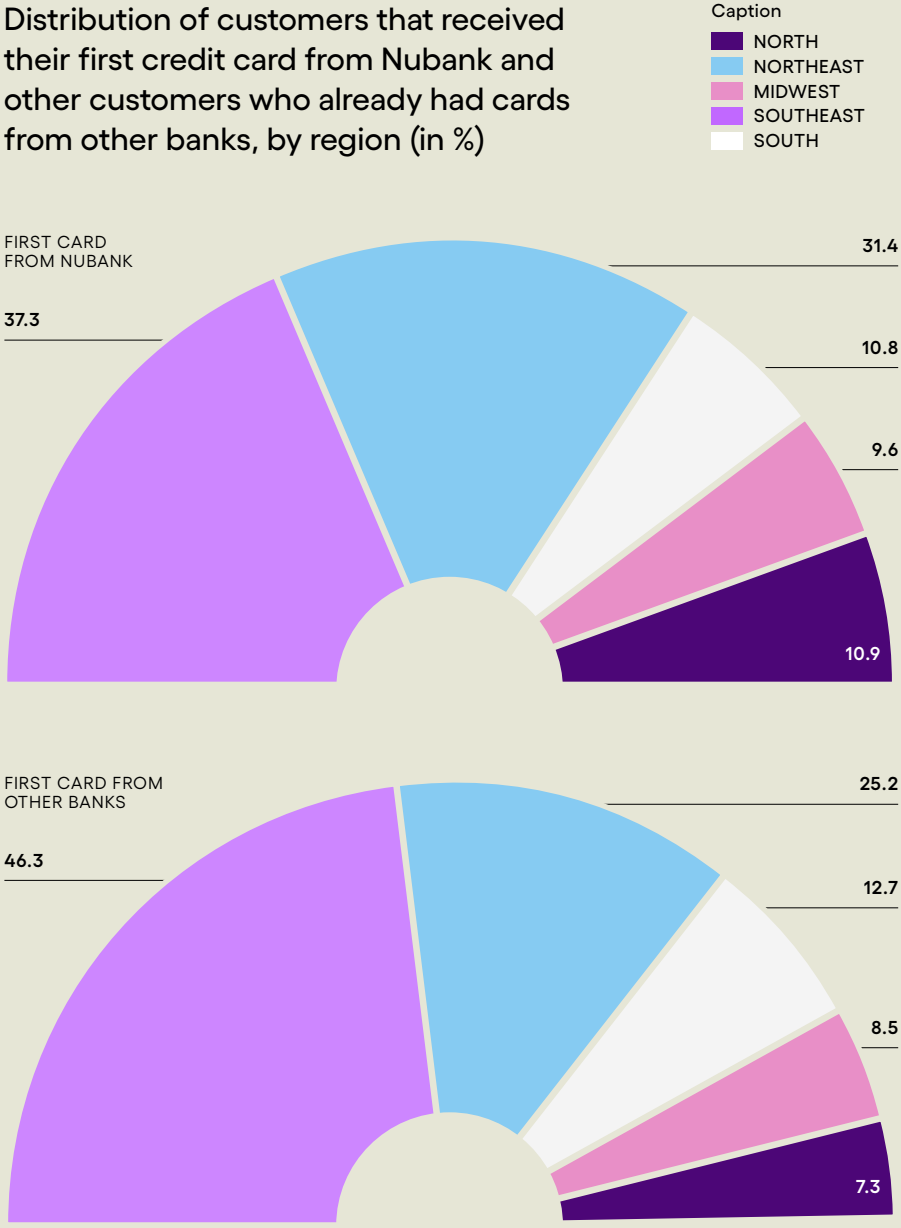


As for the southeast, although the region has the best levels in the Central Bank's Financial Citizenship Index – which range from 53.3 points (Minas Gerais) to 69.9 (São Paulo) –, it concentrates most of the country's population, around 42%, according to *the preview from the 2022 Census of the Brazilian Institute of Geography and Statistics* (IBGE), and that is why it presents an income variation compatible with the size of its population.

In addition, the Southeast region had the highest percentage of Brazilians who transitioned to lower classes in 2022 among all regions, according to the latest research on *social inequality from Oxfam Brasil* with Datafolha institute: 25% of the region's residents have dropped in socioeconomic status.

When comparing the geographical profiles of customers who already had cards with those of the included people, it is possible to see that both groups are concentrated in the Southeast and Northeast regions. However, the proportion of included people in these regions is higher, as seen in **Graph 5**.

Distribution of customers that received their first credit card from Nubank and other customers who already had cards from other banks, by region (in %)



LOW INCOME LEADS INCLUDED PEOPLE THROUGH FIRST CREDIT CARDS

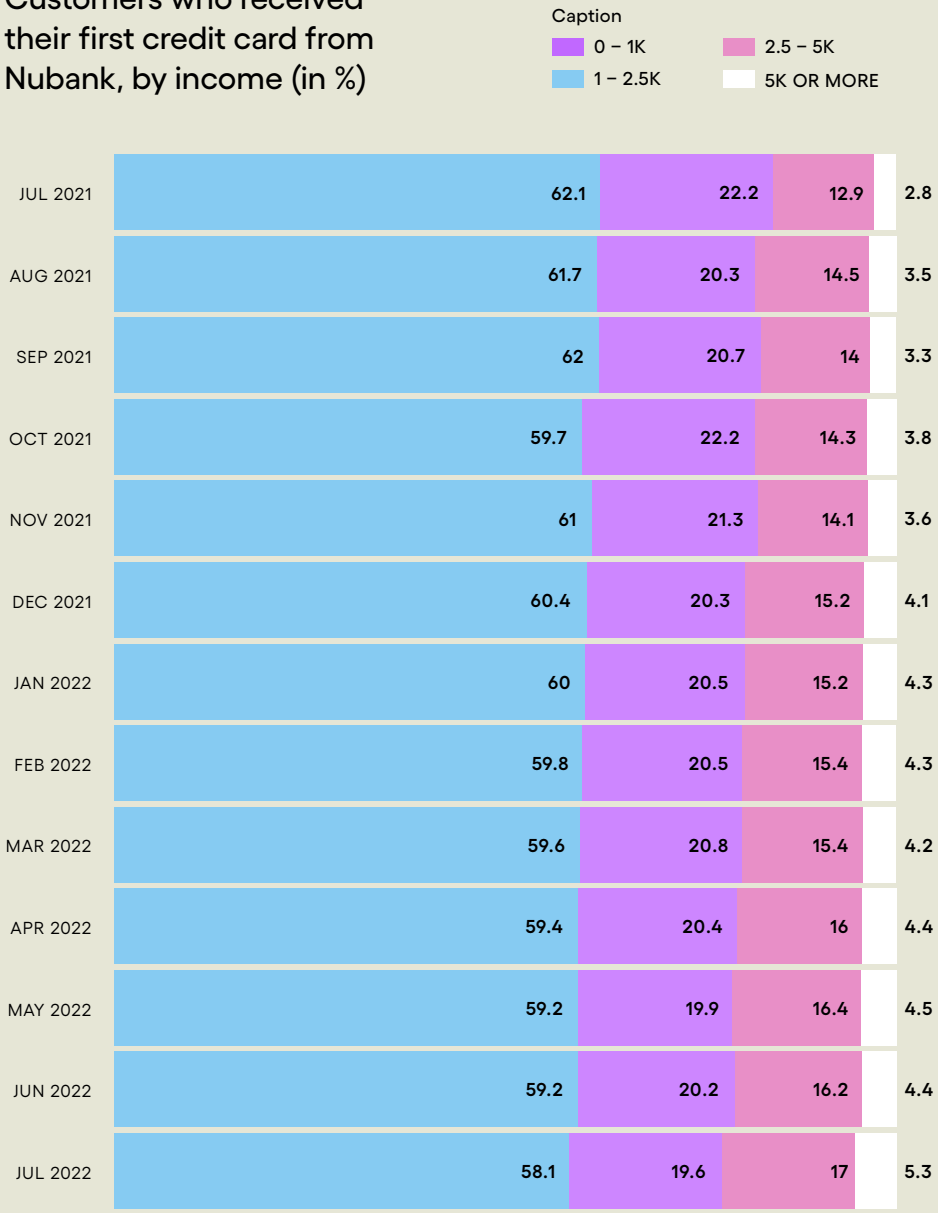
Nubank's customers included through credit cards are mainly low-income people.

Data shows that, in average, 20.7% of them joined the Nu card base with an individual income of up to R$ 1,000, and 60.2% with income ranging from R$ 1,000 to R$ 2,500. The information regarding monthly income is individual (not family) and given by the customer themselves in the app, at the moment of registration, and can be updated by the customer at any time without having to undergo any proof verification.

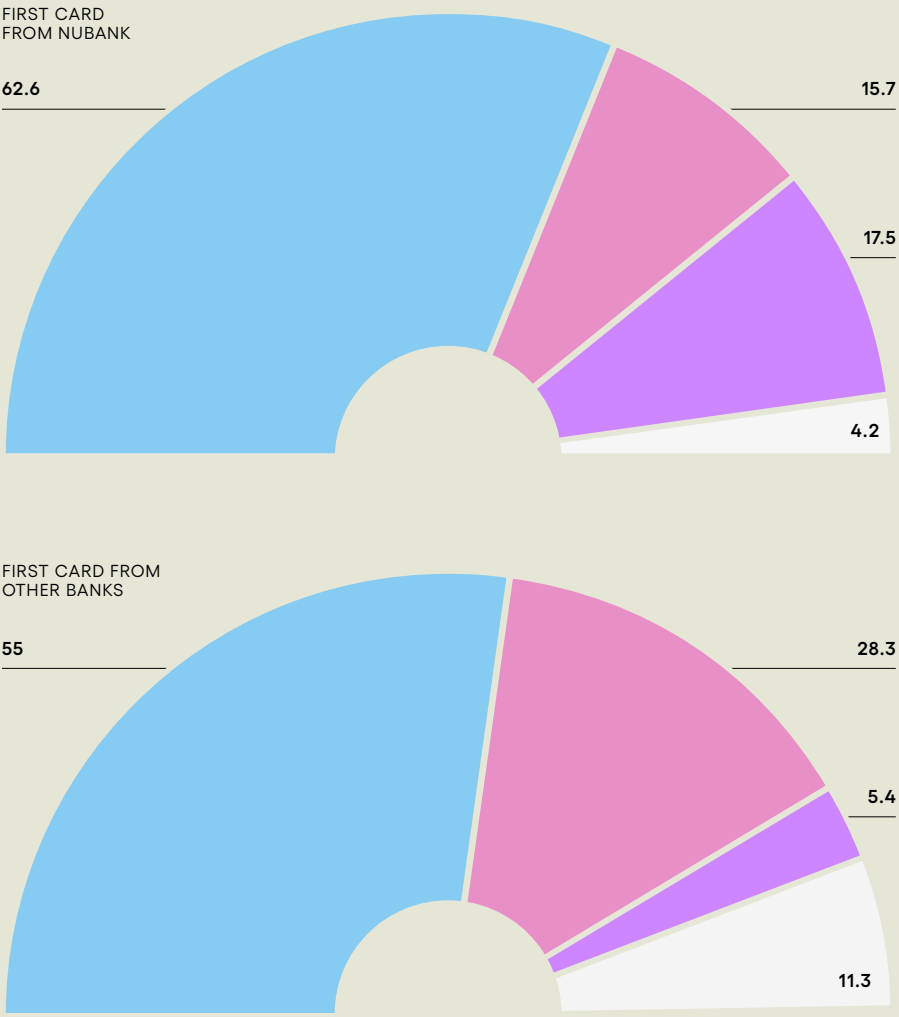
In the monthly evaluation, inclusion is concentrated among low-income people, as seen in Graph 6.

Graph 7 shows that there is a difference between the income profile of the included people and of those who already had credit cards from other institutions. It is possible to see that customers who received their first credit card from Nu have a lower income when compared to the customers who already had a credit card.

Customers who received their first credit card from Nubank, by income (in %)



Comparison between those who received their first credit card from Nubank and those who already had one from other banks, by income (in %)



YOUNG PEOPLE CHANGED THE FINANCIAL SYSTEM AND ARE MOST OF THE PEOPLE INCLUDED BY NUBANK

In terms of age bracket, those people included by Nubank with credit cards are mostly young people:

in average, 56.8% are between 18 and 30 years old, and 18.4% are between 31 and 40 years old.

According to the Central Bank report, in the last decade Brazilians have diversified their financial relationships, and young people are the face of this change. An analysis of citizens' entry in the National Financial System showed that, between 2011 and 2015, banks were responsible for 96% of young people's first relationship, the same goes for the general population.

However, between 2016 and 2020, banks started to share this role with other kinds of institutions, mainly Payment Institutions (IPs). “Notably, one in every four young people between the ages of 15 and 19 years old began their relationships with non-banking institutions. This age bracket saw the biggest increase in account opening in the cooperative system and in IPs,” stated the Central Bank.

Despite that, the percentage of older people among those who joined Nubank is significant: in average 22.1% are between 41 and 60 years old and 2.6% above 60. This group, the one over 41 years old, grew the most in participation throughout the months analyzed.

Graph 8 shows that, in July 2021, customers over 41 years old totaled 20% of the entrants. In July 2022, the participation of this group increased to 30.9%.

Customers who received their first credit card from Nubank, by age (in %)

The age bracket between 31 and 40 years old also increased from 17.9% of the total to 20.7%.

The only age bracket that decreased was actually that of the youngest ones, people between 18 and 30 years of age, from 62.1% in July 2021 to 48.4% in July 2022.

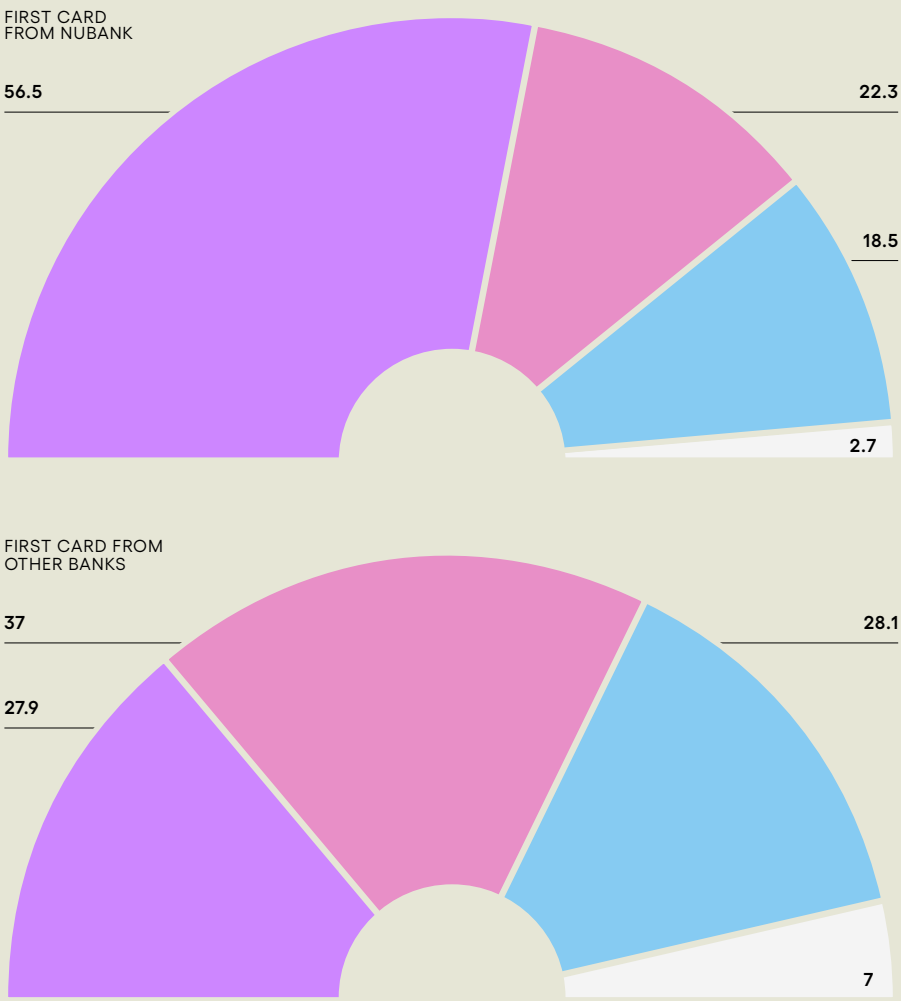
This growth of the older age brackets may be related to the increase in use of mobile phones among older people, especially during the Covid-19 pandemic, which demanded a stricter isolation from people in this group.

The annual research conducted by the Brazilian Internet Steering Committee (CGI.br) shows that the percentage of people over 60 years of age that use mobile phones was less than 10% in 2014 and increased to 65% in 2020.

This group has been using the device for financial transactions. *The Observatório Febraban (Brazilian Federation of Banks) research*, conducted in September 2022, identified that 85% of the interviewees over 60 years old access the Internet every day or almost every day. And 75% of them use the mobile phone to access digital bank services.

When we compare customers that were included with those customers who already had a credit card, we notice that there is a large quantity of young people being included in comparison with the customers that already had a credit card from other institutions, as seen in **Graph 9**. They represent 56.5% of the included ones and 27.9% of those people who already had a credit card from other institutions.

Comparison among customers who received their first credit card from Nubank, and other customers who already had credit cards from other banks, by age (in %).



PERSONAL LOAN

As we have seen before, the definitions of financial inclusion given by the most important world institutions reinforce the idea that opening a bank account is the first step towards inclusion, but we need more, such as ensuring access to responsible credit.

In addition to promoting inclusion through its portfolio of products and services, especially through its credit card, Nubank also offers personal credit.

Between July 2021 and July 2022, around 2.5 million people got their first loan from us. It is important to highlight that the data refer to one individual customer, that is, each person is counted only once, even if they have gotten more than one loan from Nubank.

In order to establish that a customer had gotten a loan from Nubank for the first time, we analyzed the data in the Credit Information System (SCR), Central Bank, for a six-month period prior to the customer joining Nubank to verify if the customer had any records of loans in their banking operation history.

If the customer did not have a credit relationship as detailed below, in the analyzed period, we considered he/she got their first personal loan from Nubank.

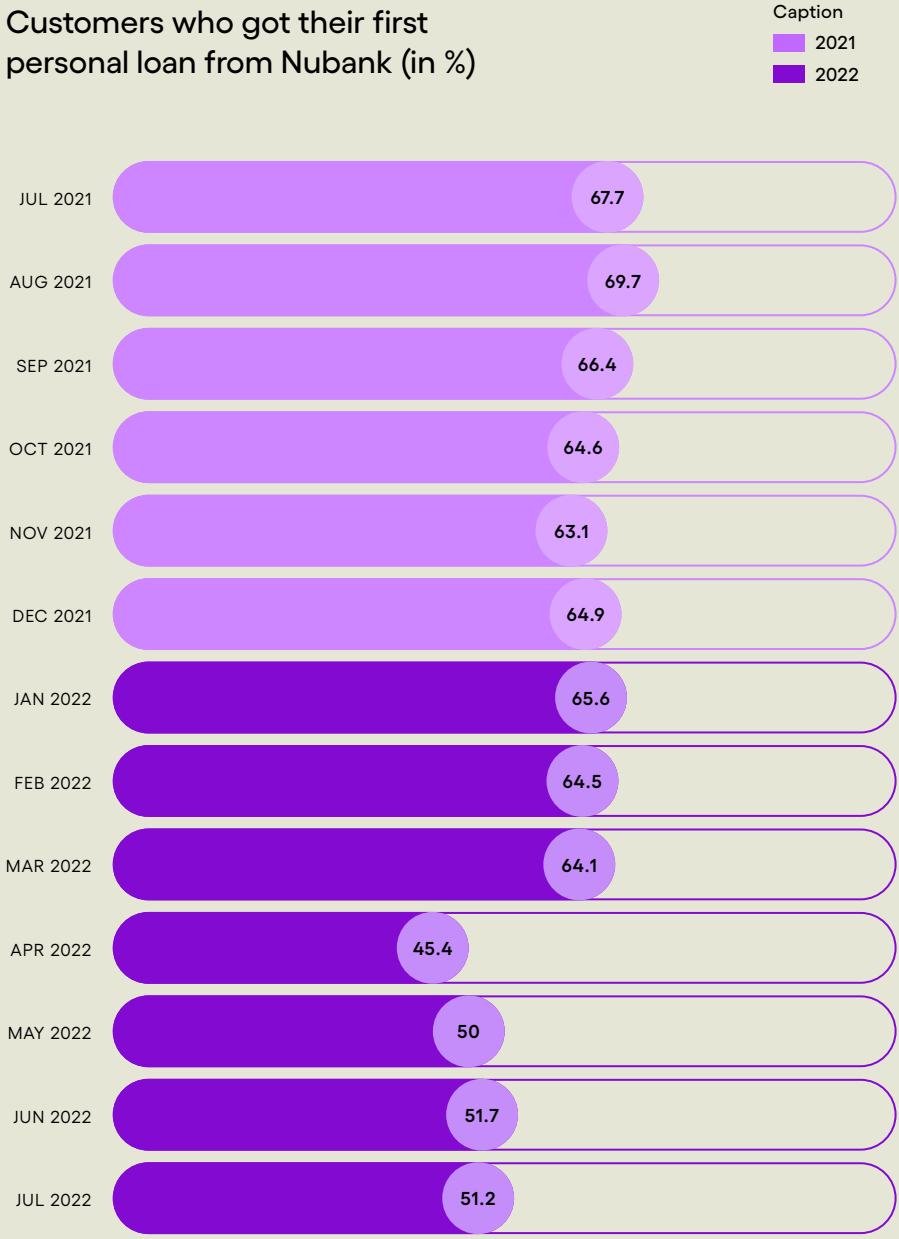
Definition of the modalities considered for analysis:

0202 Personal credit with payroll deduction

0203 Personal credit without payroll deduction

Graph 10 shows that, out of the total of customers who managed to get a loan from Nubank, around 64.5%, in average, did not have a credit history with other financial institutions. By following up the data, month by month, it is possible to see that in July 2021, 67.7% of the total of customers that got a loan with us did not have this history. This number went up to 51.2% in July 2022.

Customers who got their first personal loan from Nubank (in %)



ACCESS TO CREDIT GROWS BUT IT IS STILL UNEVEN

Between 2017 and 2020, there was a percentage growth of the adult population with access to credit, from 44% to 49%, according to the Central Bank data.

This growth was seen in all income brackets: 23% among people with low income (up to R$ 1,500) and high income (above R$ 5,200), and 26% among those people with median income (from R$ 1,500 to R$ 5,200 for the CB.)

Despite the increase in access, there is still a great concentration of credit between the Upper classes, according to the Financial Citizenship Report from the Central Bank. At the end of 2020, the credit balance was R$ 258 billion for the low-income population and R$ 914 billion for the median-income population. However, the credit balance accumulated by the 10% of the high-income population was approximately R$ 1 trillion, around four times the portfolio of the lowest-income group.

In other words, access to credit grew, but very unevenly. Nubank data shows, however, that people included through responsible personal credit during the period of analysis are precisely the less favored by the financial system. **That is, we are heading towards the opposite direction of the country's reality, as we can see in Graph 11.** It shows that, in average, 54.5% of customers that got their first personal loan from Nubank had an income of up to R$ 2,500. The other 29% had an income between R$ 2,500 and R$ 5,000 and the smallest portion, of 16.4%, declared they had an income of more than R$ 5,000.

Just like in the case of the credit card, here the information regarding monthly income is individual (not family), given by the customer himself/herself using the application at the moment of registration, and can be updated by the customer at any time without any need for proof verification.

The income profile of the people who got their first loan from Nubank is different from that of other Nubank's customers who got their personal loans from other financial institutions. Among the included people, around 54% had an income of up to R$ 2,500. Among other customers, the percentage for this income bracket drops to 40.6%, as shown in **Graph 12**.

Customers who got their first personal loan from Nubank, by income (in %)

Comparison between customers with their first personal loan from Nubank and other institutions, by income (in %)

WHO ARE THE PEOPLE WHO GOT THEIR FIRST PERSONAL LOAN FROM NUBANK?

Customers that were included through loans have a profile like that of those included through credit cards:

they are in low-income classes and, as previously mentioned, they are women, people between 18 and 30 years old, and mostly residents of the Southeast and Northeast regions.

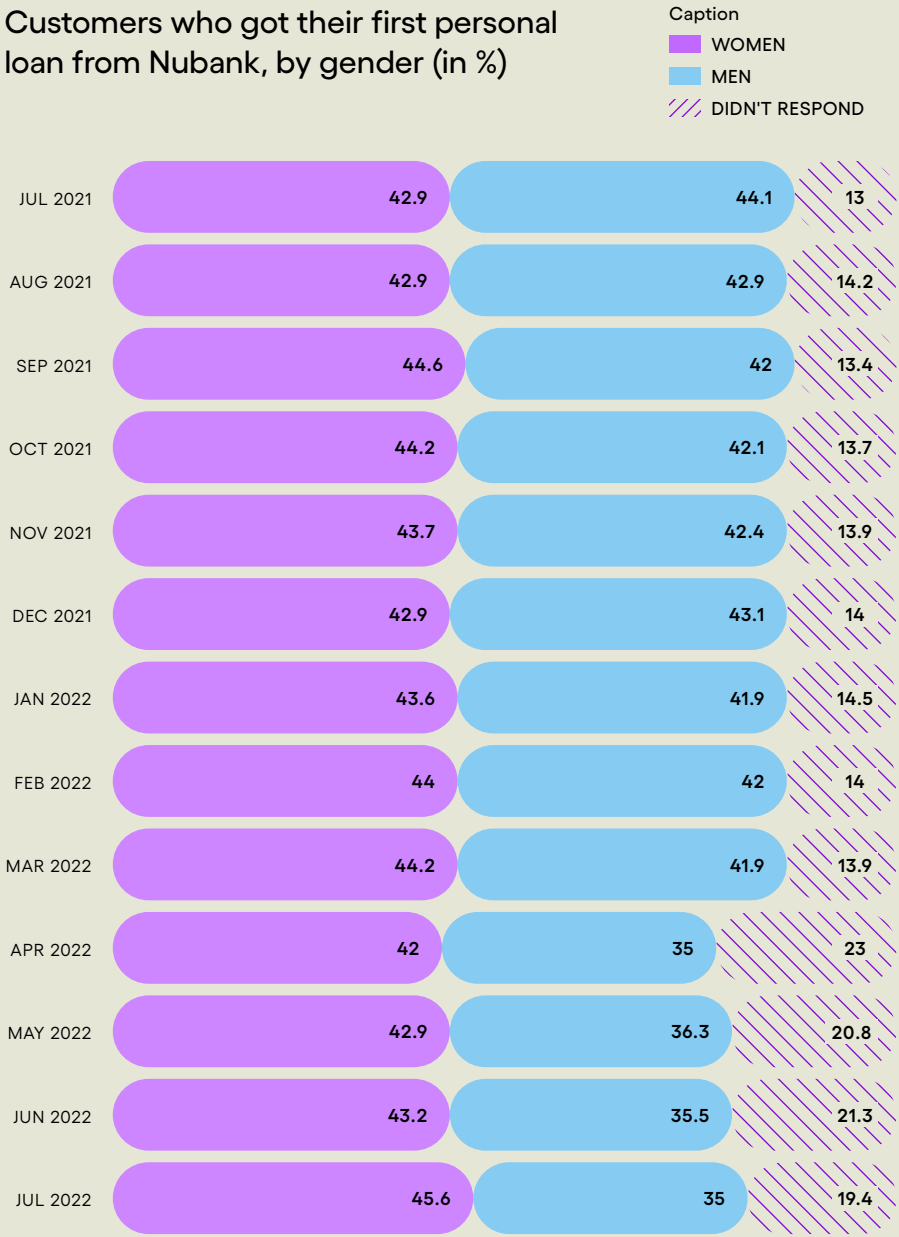
However, here, the difference of representativity between men and women is smaller than that seen among the people included through credit cards, as we can see in **Graph 13**.

Most people who had access to their first loan from Nubank answered that they are women (43%), but the percentage of men is very similar– 40%. Other 17% did not inform these data. While among the people included with cards, the difference between men and women is of almost 9 percentage points, in terms of loans this difference is of only 4 percentage points.

Graph 13 shows that the representativity of women remains stable throughout the analyzed period, while the share of men varies further down. In July 2021, they represented 44% of personal loan entrants. This number dropped to 40% in July 2022.

When compared to other customers who got their personal loan with other financial institutions before getting it from Nubank, there is little difference in terms of gender distribution, as shown in **Graph 14**.

Customers who got their first personal loan from Nubank, by gender (in %)



Comparison between customers who got their first personal loan from Nubank, and from other institutions, by gender (in %)

THE SOUTHEAST AND NORTHEAST REGIONS HAVE THE LARGEST NUMBER OF PEOPLE INCLUDED THROUGH LOANS WITH NUBANK

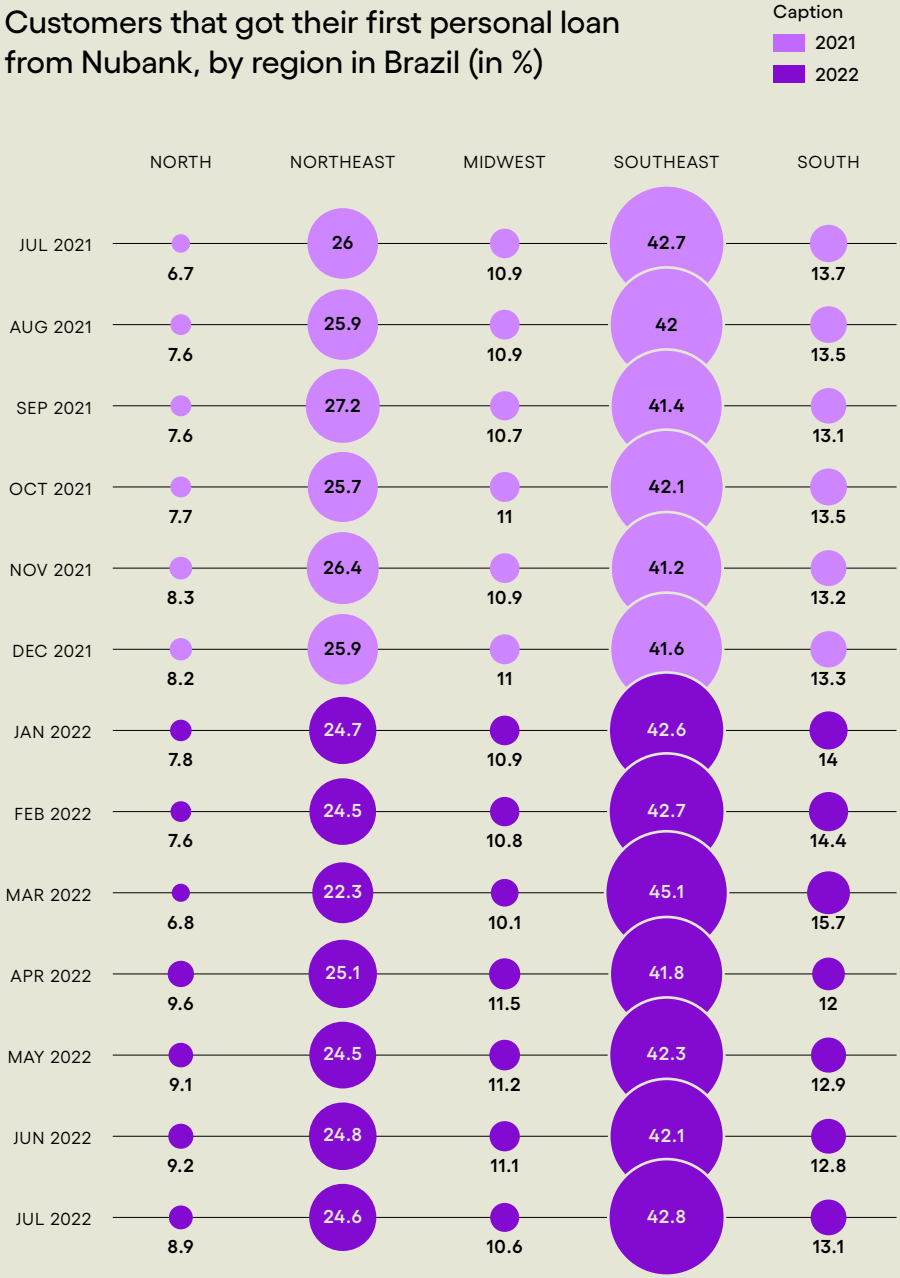
Just like it happened with the credit card, most people included by Nubank through personal loans are concentrated in the Southeast (42.3%) and Northeast (25.2%) regions.

In **Graph 15**, it is possible to see the participation of all regions month to month. Considering the profile of the financially excluded ones, it is possible to see that Nubank reaches, again, the region with the lowest financial inclusion indicators, according to the Central Bank, the Northeast region.

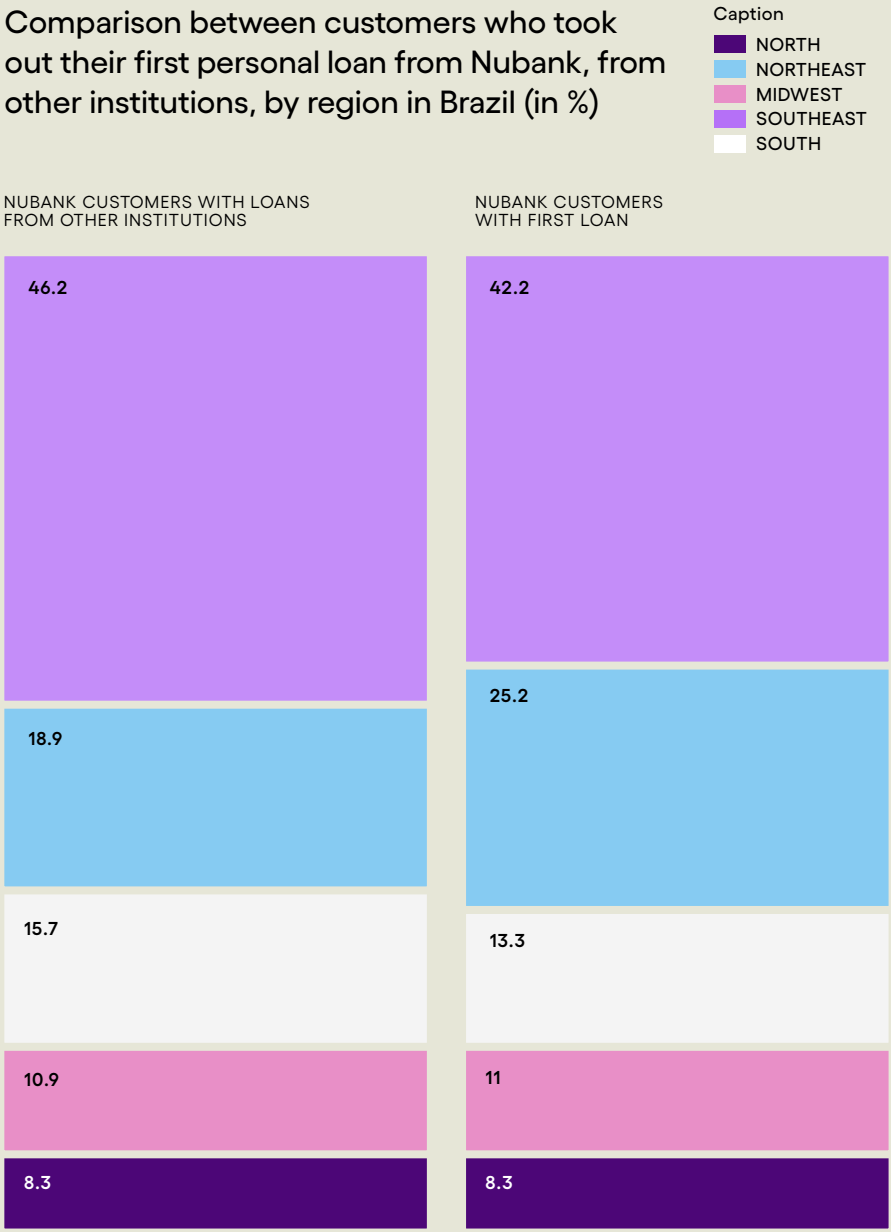
On a monthly basis, we can notice that there are no significant variations in terms of the included people by region during the period of analysis.

When compared to other customers who got personal loans from other institutions before getting them from Nubank, the included people have a greater presence precisely in the Northeast, as shown in **Graph 16**.

Customers that got their first personal loan from Nubank, by region in Brazil (in %)



Comparison between customers who took out their first personal loan from Nubank, from other institutions, by region in Brazil (in %)



YOUNG PEOPLE ARE ALSO SIGNIFICANT IN TERMS OF INCLUSION VIA LOANS

In terms of age bracket, those included by Nubank through personal loans are young people:

In average, 54.6 % are between 18 and 30 years of age, and 25.8% are between 31 and 40 years old. Those between 41 and 60 years old represent 18.4%, and people over 60 years old represent 1.2% of the total of included ones.

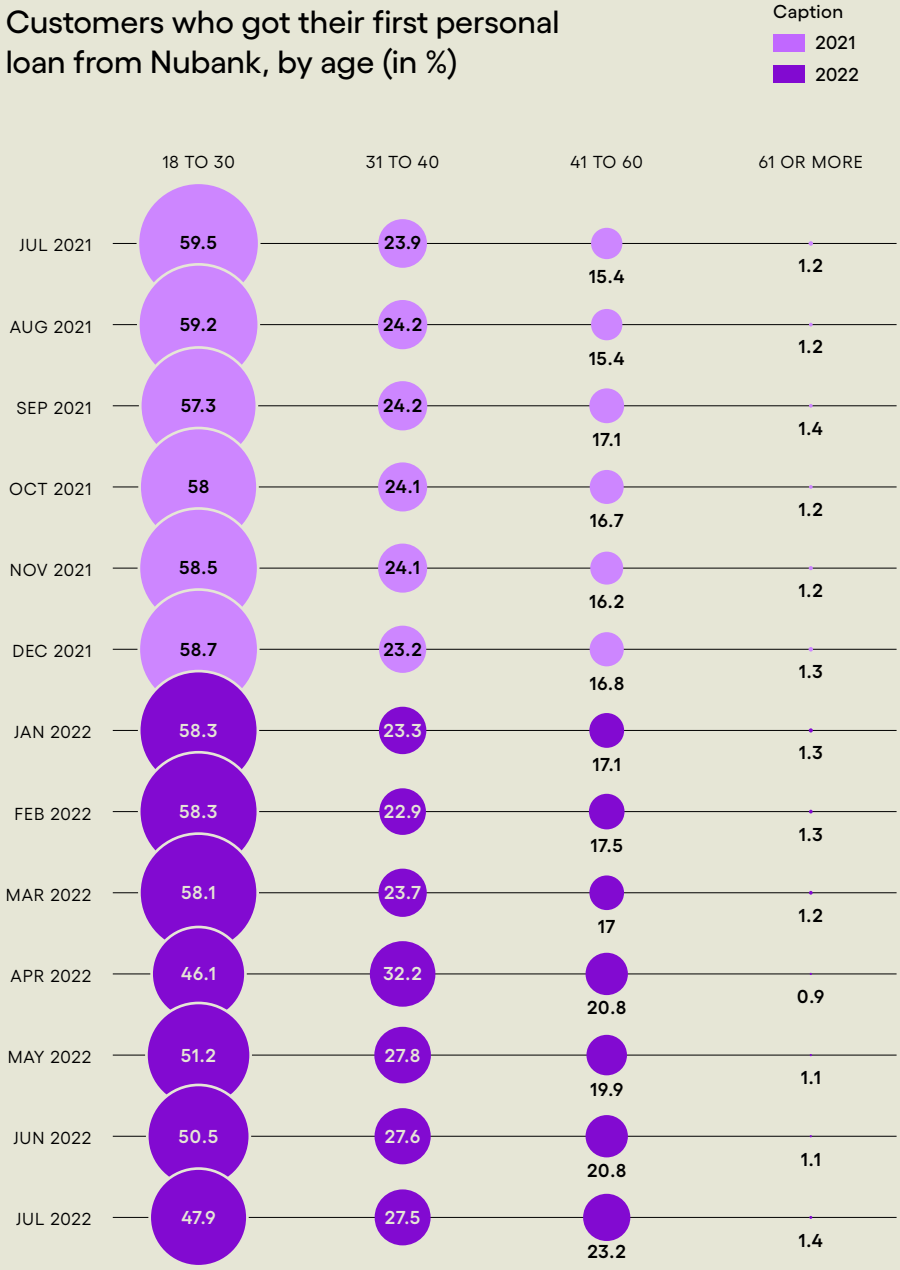
Despite their lower representativeness, **Graph 17** shows that it is precisely the oldest age brackets that have been growing among the included people during the period of analysis. The share of customers over 60 years old represented 1.2% of the total of people who took out their first loan in July 2021. In July 2022, they had increased to 1.4% of the total. Participation of those between 41 and 60 years old grew more in the period, it went from 15.4% to 23.2%.

Although still small, this increase is relevant because a significant part of the credit offer in the market for this age bracket is payroll loans, a modality that is not provided by Nubank yet. According to the Central Bank, in December 2022, personal credit with payroll loans for people over 60 amounted to almost R$ 200 billion. Overall, 10 million operations were done.

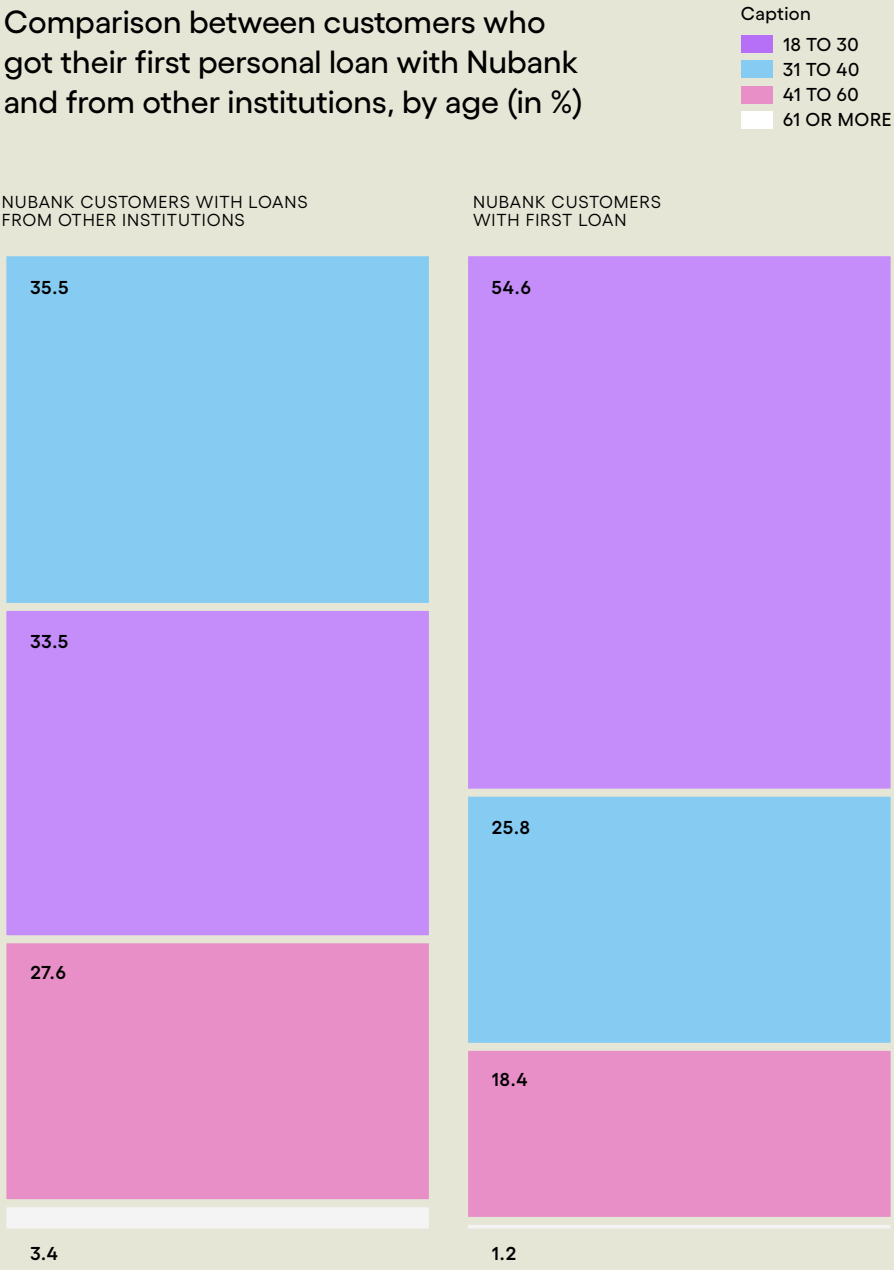
In comparison with the others, the young people between 18 and 30 years old stand out. Among the included ones, they represent 54.6%, but among other customers they represent 33.5%, as we can see in **Graph 18**.

A possible explanation for the larger participation of young people among the included ones is that they are more experienced in using Nubank application, which gives clear and transparent information about fees without bureaucracy.

Customers who got their first personal loan from Nubank, by age (in %)



Comparison between customers who got their first personal loan with Nubank and from other institutions, by age (in %)



ABILITY TO MAKE PAYMENTS AND PURCHASE GOODS

Millions of people were included in the financial system through credit cards and personal loans. However, will they be able to honor their commitments?

According to the data, the answer is yes. Nubank has managed to constantly remain below the market default levels: 7.4% against 7.8% of the market for credit cards and personal loans in the fourth quarter of 2022, even considering a mix more concentrated on low-income and middle-income customers in relation to the total market.

The most recent data from the Central Bank shows that the country's credit card default rate closed in November 2022 at 7.8%, while Nubank registered a default rate of 5.3% in the fourth quarter of 2022.

This low default percentage among Nubank's included people is also relevant in view of the financial situation of Brazilians in general. According to the National Confederation of Commerce (Confederação Nacional do Comércio – CNC), the proportion of people in debt in 2022 reached its highest number since 2010, when the confederation started the research.

The *most recent data* show that, in 2022, the percentage of families who reported to have debts falling due (post-dated checks, credit cards, overdraft, store installments, payroll credit, personal loans, car installments, house mortgages) reached 77.9% of all Brazilian families.

In addition, the research showed that, in average, Brazilians had to spend 30.2% of all their income only to pay debts in November, not to mention utility bills, among others. That is, for each R$ 1,000 of income, R$ 302 were spent paying debts.

In view of this reality, from August 2020 to August 2022, Nubank deducted R$ 1.84 million in interest from included customers that did not pay their bills on their due date. Overall, 17% of these customers with their first credit cards received the benefit.

FINANCIAL CONTROL, INDEPENDENCE, AND INVESTMENTS

As we have seen, financial inclusion is more than mere banking.

In addition to ensuring access to financial products and services, it involves other elements, such as control over one's expenditures, financial independence, resilience, ability to save money and to invest. Check out each one of them:

Financial control and independence

it is the ability to **save money and have savings to be ready for emergency** situations without letting them affect people's financial health.

Financial resilience

it is the ability to **plan one's budget** so as to increase family's security **when problems arise.**

Saving and investments

it is the ability to **increase part of the family's income** with the help of financial products.

In order to achieve this, it is necessary to give people access to tools and investments opportunities. Contrary to what many people believe, investing is not only for those with a lot of money. In fact, investing is the gateway for people of any income and age to start planning short, mid, and long-term security, something essential for financial inclusion.

The *data in B3* show this. Until the end of the third quarter of 2022, the number of individual investors that invested in the Stock Exchange was 4.6 million, which represented a 35% increase in comparison with the same quarter in 2021. The number of investors with money invested in fixed income (a more conservative type of investment) went from 9.6 million to 12.6 million in the same period. A great number of these people do not invest a lot of money in these products. The survey conducted by B3 shows that, in average, each investor had a balance of R$ 3,000 at the Stock Exchange, half of the 2021 amount, when the balance was R$ 6,000.

B3 also identified that the entrants start investing with small amounts. Among those people who started with variable income in September 2022, 31% made their first investment with amounts up to R$ 40. Other 29% invested something between R$ 40 and R$ 200. For the São Paulo Stock Exchange this shows that the world of investment has become increasingly democratic. But there is still room for progress, and Nubank is taking part in this journey.

In order to understand how inclusion through investments happened, we conducted research in 2022 with 7 thousand customers that invest with us. This sample is representative, that is, these 7 thousand people consulted have characteristics, behaviors, ages, and genders that replicate in the same proportion all these factors of the total number of customers that invest in Nubank.

The study shows that 55.4% of customers that have some amount invested in products sold by Nubank's application started investing and saving money with us, as we can see in **Graph 19**.

People who started investing with Nubank (in %)

55.4

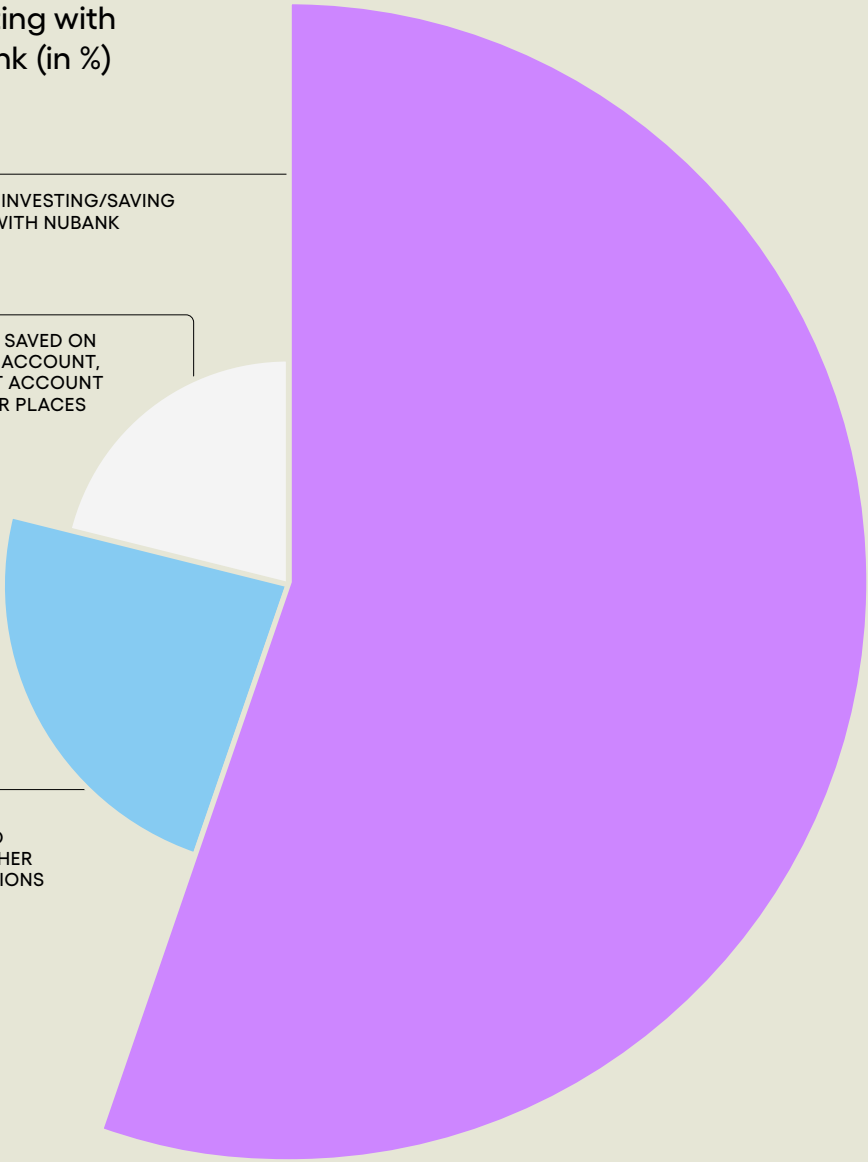
STARTED INVESTING/SAVING MONEY WITH NUBANK

23.6

ALREADY SAVED ON SAVINGS ACCOUNT, CURRENT ACCOUNT OR OTHER PLACES

21

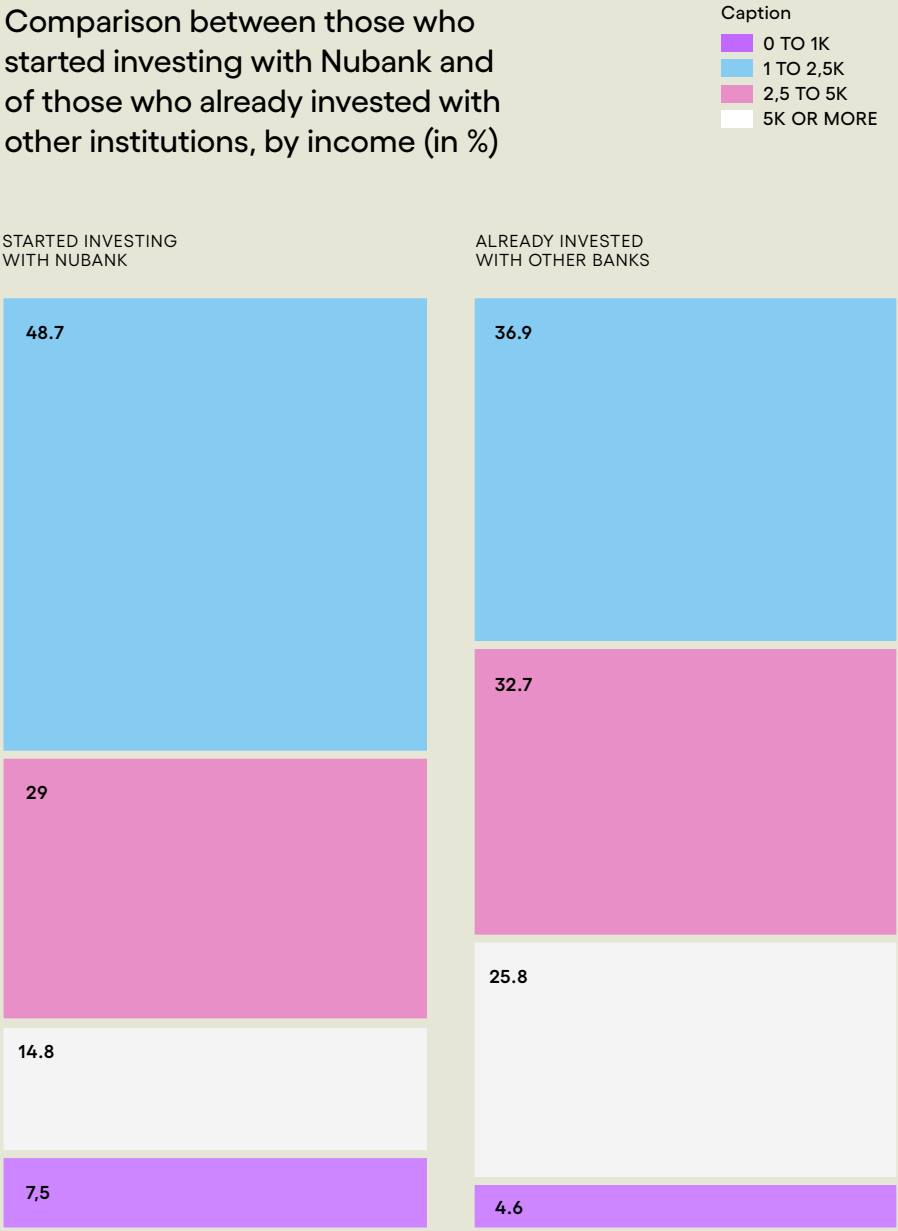
ALREADY INVESTED WITH OTHER INSTITUTIONS



A large portion of this public have low income: 7.5% of those who started investing with Nubank have an income of up to R$ 1,000 and 48.7% have an income between R$ 1,000 to R$ 2,500, as seen in Graph 20. It is important to highlight that, as with credit cards and loans, the information regarding monthly income is individual (not Family), given by the customer himself/ herself in the application, at the moment of registration, can be updated by him/her at any time, and is not subject to verification.

The income profile of those included by Nubank through investments is different than that of the people who said that they had already invested money with other institutions: 58.5% of them have incomes of more than R$ 2,500.

Comparison between those who started investing with Nubank and of those who already invested with other institutions, by income (in %)



WHO ARE THE PEOPLE WHO INVESTED WITH NUBANK FOR THE FIRST TIME?

In the world of new investors, it is all about women.

Women, between 18 and 30 years old, and those who live in the Southeast and Northeast regions also represent a great part of the people who started saving money and investing with Nu for the first time. Generally speaking, this is also the profile of the Brazilians who do not invest, according to the study *Raio-X do Investidor, 2022,* conducted by the Brazilian Financial and Capital Markets Association (Anbima - Associação Brasileira das Entidades dos Mercados Financeiro e de Capitais).

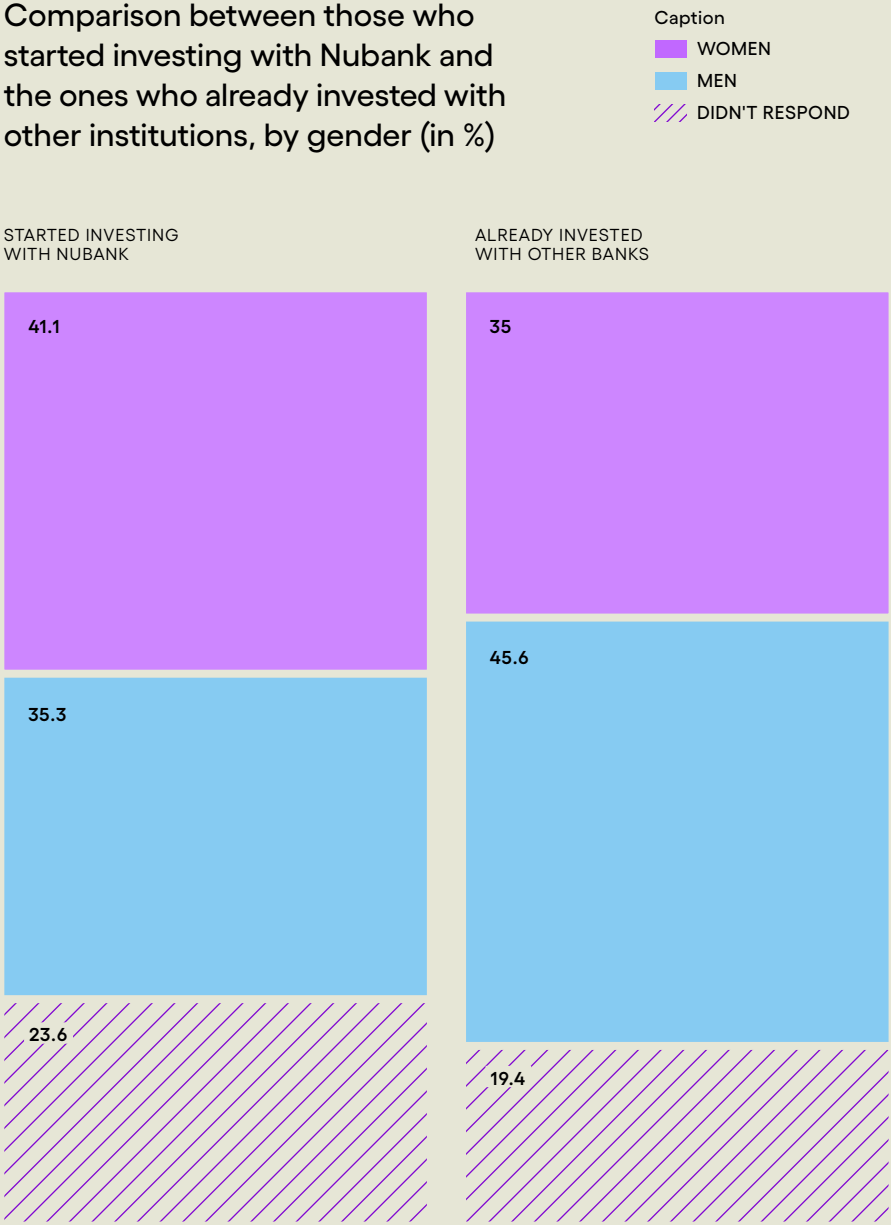
According to the study, 84% of non-investors are in classes D and E. In addition to the difficulty to put aside part of the income for savings, this portion of the population is not

very interested in the subject, only 14% of non-investors from classes D and E seek information about investment. We believe that this lack of interest is due to lingering myths regarding investments. For example, that it is a market only for people with a lot of money, that it is difficult to understand and not very accessible.

It also shows that 72% of the country's female population do not invest, while 66% of the male population do not invest. In addition, 64% of the Brazilian women do not save any money, and among the men this percentage drops to 58%.

In other words, our data show that Nubank managed to reach a portion of the population who had been excluded from the "world" of investment. **Graph 21** shows that 41.2% of those who started saving and investing for the first time with Nubank are women, 35.3% are men, and 23.6% did not give this information. The profile of the people who already invested with other institutions is very similar to that of the investor identified by Anbima: men from the middle and upper classes.

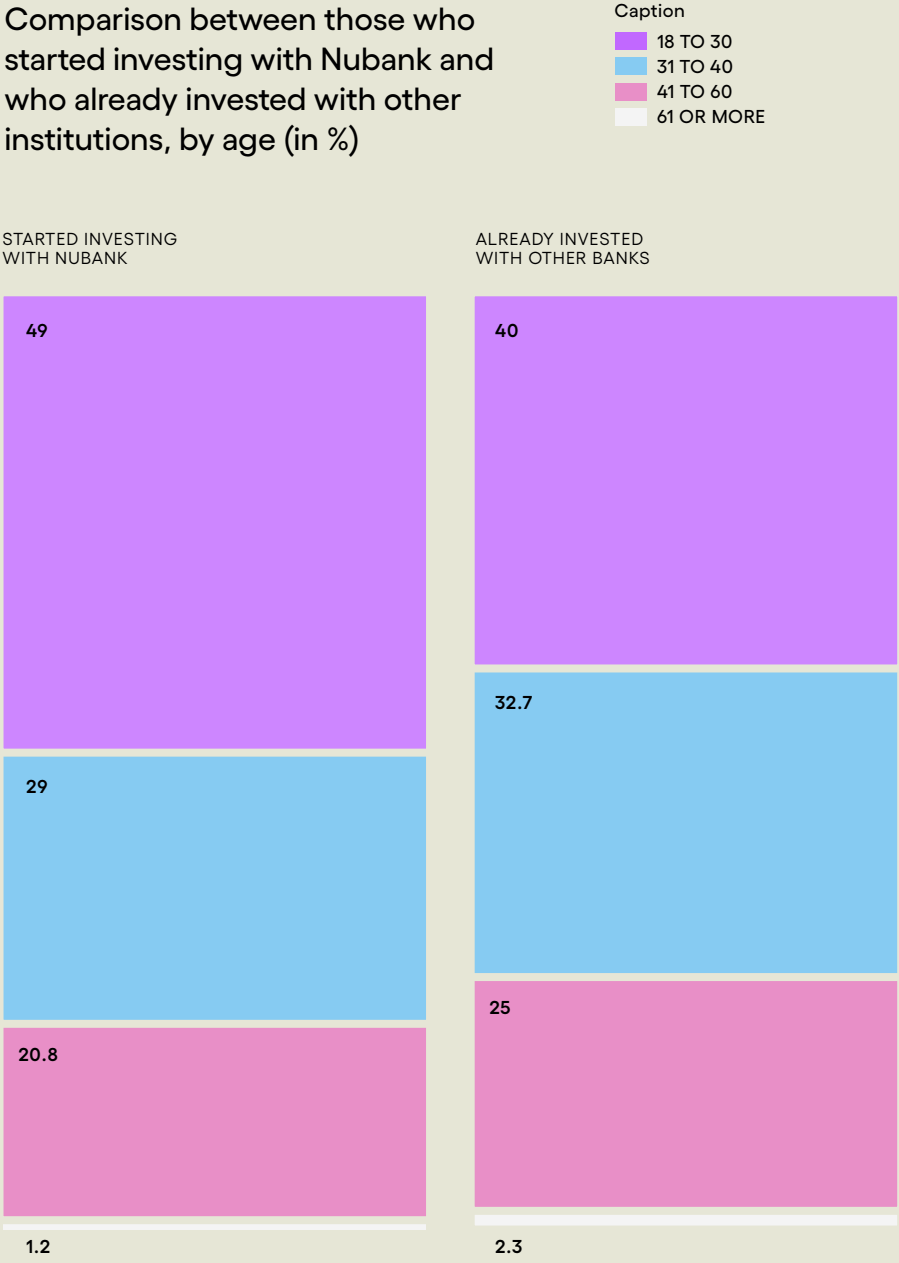
Comparison between those who started investing with Nubank and the ones who already invested with other institutions, by gender (in %)



In terms of age brackets, our data also show that there has been inclusion. Anbima identified that people between 26 and 60 years old represent 66% of the investors. That is, the youngest ones, between 16 and 25, and oldest ones, over 61 years old, are the most excluded in the average profile of Brazilian investors. However, at Nubank, the group between 18 and 30 years old represent a large portion of new investors, as we can see in **Graph 22**.

The graph also compares the age of the people who started investing with Nubank to that of the people who already had investments in other places, and it is possible to see that we find the biggest difference in the age bracket between 18 and 30 years old: 49.1% of the people who started investing with Nubank is this age compared to 40% of the ones that had invested before.

Comparison between those who started investing with Nubank and who already invested with other institutions, by age (in %)



Both the people who started investing with Nubank and the people who already invested come from the Southeast and Northeast regions. This profile is the same as that of the country's general profile. Traditionally, the Southeast region concentrates the most investors, especially in terms of variable income, but the number of investors in the Stock Exchange in the North and Northeast regions is the one growing the most, according to *data from B3*. From 2018 to 2020, the growth was of 1,040% in the North region and 772% in the Northeast region.

Among our customers, **Graph 23** shows balance in the regional distribution of the people included and of those who had invested before 44.4% of beginners and 48% of people who were already investing come from the southeast, and 22.8% of entrants and 21% of those who were already investors come from the Northeast region.

Comparison between those who started investing with Nubank and who already invested with other institutions, by region in Brazil (in %)

FINANCIAL OBJECTIVES

An important step in one's financial inclusion trajectory is to set goals.

This shows that the person is aware and knows his/her financial situation, and also that he/she understands what needs to be done in order to achieve financial goals. In the Financial Citizenship report, the Central Bank relates the definition of goals to financial well-being."

"Financial well-being was defined by CFPB, the consumer financial protection bureau in the United States, in 2015 and 2017, when a measuring tool was created. Both the concept as well as the tool comprise four elements of a person's financial life centered on security and freedom of choice experienced in the present and future," says the CB. The four elements are:

TABLE 3

The four elements of financial well-being

	PRESENT	FUTURE
SECURITY	Control over your day-to-day finance.	Capacity to absorb a financial shock.
FREEDOM OF CHOICE	Financial freedom to make choices and enjoy life.	On track to meet your financial goals.

Fonte: CFPB

That is, the goals are part of people's freedom of choice. The survey carried out by *BSD Consulting/ELEVATE*, in 2021, at our request, showed that Nubank also had an impact on that pillar. Out of all customers that year, 62% said they had set financial goals before becoming our customers. However, this number increased to 95.3% after the opening of accounts or acquisition of a Nubank card.

In addition, 72% stated that they manage to save money and, out of those, **67% said Nubank services contributed for that to happen. The survey also showed that 77% said that Nubank had impacted their financial life positively.**

To help our customers organize and plan their budget according to their goals, we launched and improved several tools, such as Caixinhas (Small Boxes), with which customers organize and save money from their account in “small boxes” created for each goal. Overall, 10 million Caixinhas have been created for the most diverse types of goals, such as Emergencies, Travels, and Weddings. Out of this total, 4.6 million are customers that are actively saving money in them.

FINANCIAL EDUCATION

One of the pillars of financial inclusion is access to accurate, practical, and useful information, which, with the Internet, is increasingly widespread.

The Brazilian Financial and Capital Market Association's (Anbima) *Raio-X do Investidor de 2022*, shows that 26% of investors seek information with their bank manager or investment advisor, either in person or remotely, 20% ask relatives or friends, 12%, news sites, 11%, brokers apps and sites, 6%, digital influencers, and 8%, other means. Out of the total of the interviewed people that invest, 12% state that they do not search for information.

Despite the greater number of sources, the country's level of financial education is low. In 2020, on a scale from 0 to 100, the Brazilians' Financial Education Index was 37.2% According to this index, the closer to 100, the greater the population's level of financial education, says the Central Bank.

For the bank, financial education is achieved when "the citizen has the opportunity to develop capacities and self-confidence to manage their financial resources." It is possible to develop these capacities through the following initiatives:

Conventional

such as courses, lectures, booklets, and workshops.

Digital

with content offered by some **technological elements**, such as websites, blogs, and posts on social media

Automatic

through moments when **customers and the financial institutions meet** while customers use financial products and services.

Making quality content tools available with simple language ensures short and long-term results in people's financial lives. An evaluation of the *Central Bank and the World Bank* indicated that the participation of young Brazilians in a financial education program in high school, between 2011 and 2012, resulted in less use of the most expensive modalities of long-term credit.

According to BC, four years into the program, the young participants reduced the average probability of using overdraft from 10.95% to 9.96% and the probability of using revolving credit with credit cards from 22.98% to 21.43% when compared to the young people who did not receive financial education classes.

To map out these initiatives, the Central Bank consulted 68 institutions, including banks and payment institutions. Out of this total, 60 people answered and informed 176 actions related to financial education. BC further verified that 53% of the institutions that answered did not mention financial education as part of their policies, and 60% did not mention this subject in their strategic planning.

At Nubank, financial education has been part of our business strategy from day one. We have been providing financial education content on our blog, and in other communication channels, since 2018.

Our “Fala, Nubank” blog accumulated almost 63 million users in 2022; on social networks, our number of followers increased from 10.2 million, in 2021, to 11.9 million at the end of 2022. In addition to our communication channels, in 2022, Nubank launched the Nu Ensina (Nu Teaches) platform, with free classes on investments and finance inside the app. Over 1 million customers have accessed the educational content and did at least one of the tasks suggested.

The survey carried out by *BSD Consulting/ELEVATE*, in 2021, showed that 69% of that year’s customers knew that Nubank provided financial education on its communication platforms, and more than 33% of the customers who knew about these resources accessed that content, whether sporadically or regularly.

Out of these customers who know that Nubank provides financial education content, and who have already accessed this service, 75% agree that the shared content increased their knowledge about finances.

The survey also showed that people’s level of financial education increases after they become Nubank’s customer. The percentage of those who evaluate their financial skills as “high” or “very high” since becoming Nubank’s customer increased from 15% to 36%.

CHAPTER FIVE

conclusion

Brazil still has a long way to go in terms of financial inclusion.

Yet, public and private initiatives, such as those of Nubank, signal important advances. The number of individual investors shows that, for example.

In 2021, there were 500,000 Individual Taxpayer numbers (CPF) at the Stock Exchange, and these investors had an average balance of R$ 13,000. These numbers did not change much until 2017. In the third quarter of 2022; however, this number grew to 4.6 million of individual taxpayers, with an average balance of R$ 2,000 invested. In Direct Treasury, a program from the National Treasury of Brazil which democratizes access to public bonds, the number of CPFs with money invested in bonds increased 2.1 million in the same period. In fixed income, there are 12.6 million CPFs.

When analyzing investment data, it is possible to see that there has been concrete progress in terms of inclusion, after all, investing and saving money are the objectives of the inclusion journey. When investing, Brazilians first went through initial and important stages, such as banking, access to credit, and financial organization and planning, and then saving and investing.

We believe that access is a catalyst for people's empowerment. It is through access that they can dream and make plans again. Making credit available is a task that needs to be done prudently, providing the necessary tools so that customers can use them responsibly.

Responsible credit, therefore, is an essential tool for good financial management, regardless of the customer's income. Access to easy and low-cost financial organization and investment products and platforms is the way to create possibilities for people: opportunities to generate new sources of income, to solve problems in the present, and to build a healthier financial future.

As we have seen, this access needs to be accompanied by clear content and practical information to prevent it from becoming a budget problem. It was with financial education content that we helped our customers regain control over their money and use the products and services we provide healthily and responsibly. Our blog alone has over 3 thousand educational contents.

This way, based on this study, we can conclude that, by providing access to credit to people without financial history, Nubank plays an important role in the financial inclusion of Brazilians in a responsible way.

We can also conclude that the inclusion promoted by Nubank took place among the excluded people: low-income women, aged between 18 and 30 years old, in the Southeast and Northeast regions. It is also possible to see a greater inclusion in the group over 60, especially when it comes to inclusion via credit card.

Despite having included millions of people via access to credit, with cards and personal loans, Nubank has not seen an increase in its defaults rate. In the case of credit cards, the default among the people included by Nu is far less than the market's average rate.

Young people are at the bottom of the investment pillar, but it is precisely this age bracket, between 18 and 30 years old, that is the biggest representative of the group that started investing for the first time in their lives with Nubank.

We are well aware that this is just the beginning of Nubank's contribution to the financial inclusion of Brazilians, and that the current situation of high indebtedness, high interest rates, poverty growth, and extreme poverty, makes the task of contributing to Brazil's reduction in inequality much more challenging. Still, we believe that it is possible to contribute for the financial control of Brazilians by responsibly providing financial products and services, knowledge, and organization tools.

With this study, we want to share relevant information about Nubank's contributions to the country's financial inclusion process. This research aimed to share some of what we have built so far and signal that we will continue on this path not only for Brazil, but all of Latin America as well.

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