Pix and Zelle:

Two Payment Journeys. Two Governance Models. One Global Transformation in Instant Payments.

ClearFi Institute | Financial Innovation & Trust
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https://www.linkedin.com/company/clearfi-institute-financial-innovation-trust/



Over the past decade, instant payments have evolved from an emerging innovation into a fundamental component of modern financial infrastructure. Millions of consumers and businesses around the world now rely on real-time payment systems as part of their daily financial lives.

Among the most prominent initiatives are **Pix**, in Brazil, and **Zelle**, in the United States. Both enable fast transfers between bank accounts through simple identifiers, reducing reliance on cash, checks, payment slips, and other traditional payment methods.

At first glance, the two solutions appear remarkably similar. Within seconds, funds can be transferred from one bank account to another using only a mobile phone number, email address, or another simplified identifier.

However, a closer examination of their **origins, governance models, user journeys, and long-term strategic evolution** reveals that Pix and Zelle followed fundamentally different paths to address similar challenges.

Rather than simply comparing features, this paper explores how two of the world's largest instant payment ecosystems were designed, implemented, and evolved, and the valuable lessons each model offers for the future of financial services.
o futuro dos serviços financeiros.

Understanding Zelle

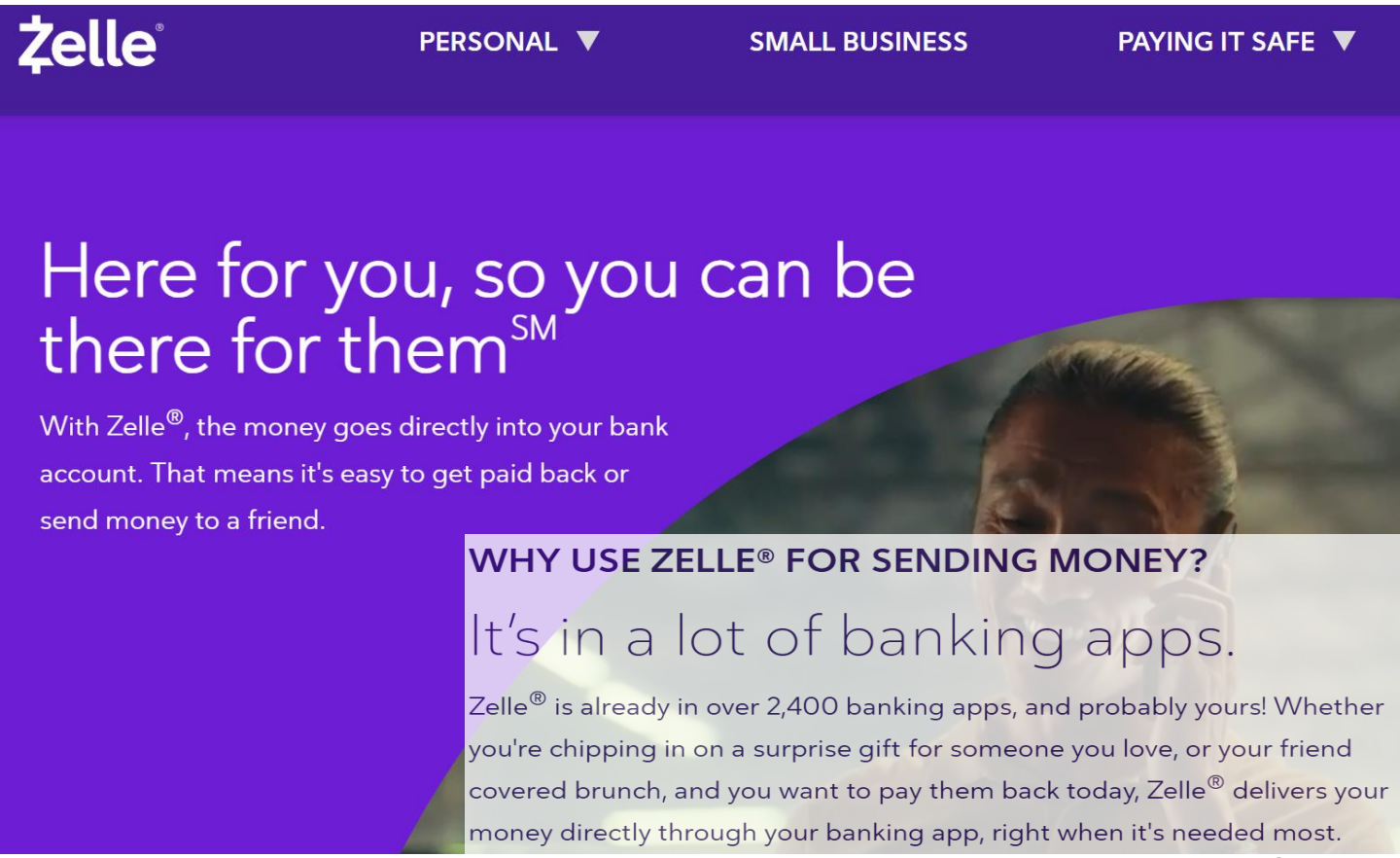
Zelle is an instant bank-to-bank payment network launched in the United States in 2017 through an initiative led by the country's largest financial institutions. Unlike digital wallets such as Venmo or PayPal, Zelle does not hold customer funds or require an intermediary account. Instead, money moves directly from the sender's bank account to the recipient's bank account.

Today, more than **2,400 U.S. financial institutions** participate in the Zelle network by integrating the service into their online banking platforms and mobile applications. As a result, most Americans with a bank account already have access to Zelle without needing to download an additional app.

To begin using the service, customers simply link their bank account to an email address or U.S. mobile phone number.

The experience is straightforward, fast, and widely adopted.

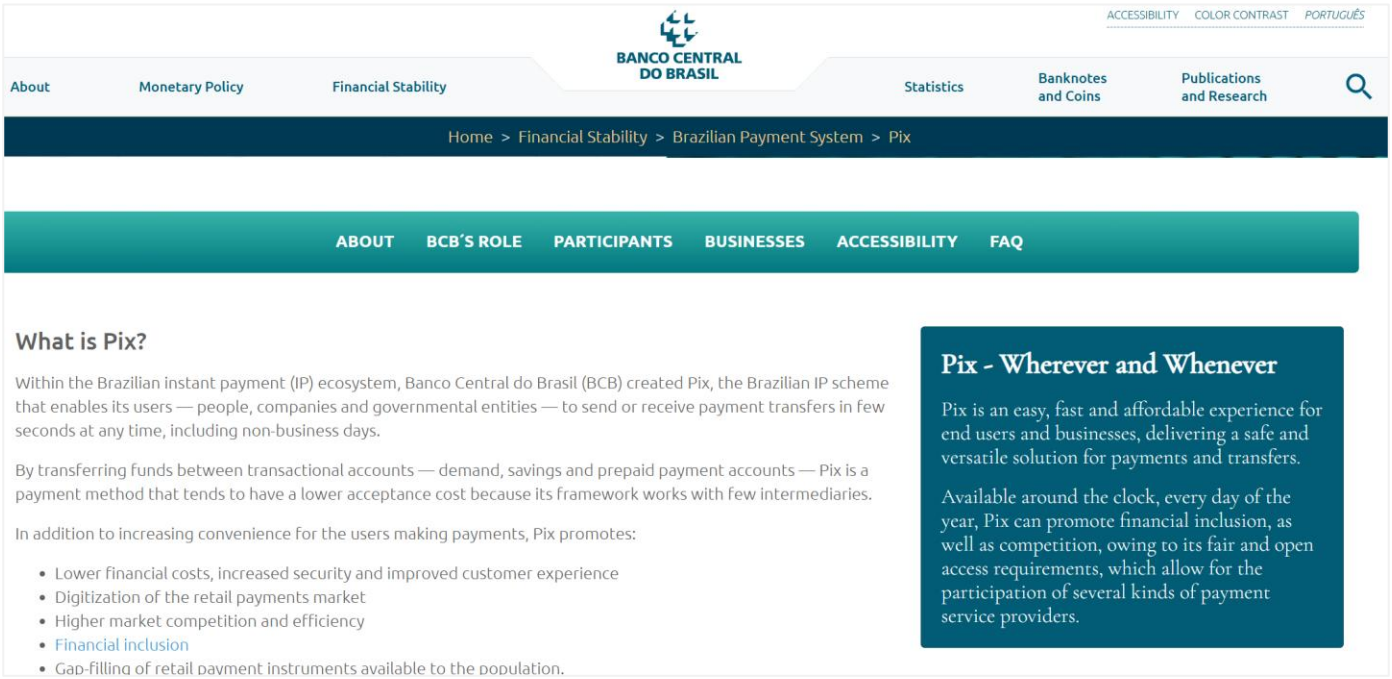
However, it is precisely the infrastructure behind this simplicity that reveals the most significant differences between Zelle and Pix.



Fonte: https://www.zelle.com/

Understanding pix

ClearFi INSTITUTE



Pix is Brazil's instant payment infrastructure, developed and operated by the **Central Bank of Brazil** and officially launched in November 2020.

More than simply introducing a new payment method, Pix was designed as a national payment infrastructure aimed at expanding financial inclusion, increasing competition, reducing transaction costs, and fostering innovation across Brazil's financial system.

Like Zelle, Pix enables real-time transfers between bank accounts.

Today, Pix serves more than **170 million registered users** and has become one of the world's largest instant payment ecosystems by transaction volume.

Pix features

Instant solution
An instant payment solution that settles funds transfers in a few seconds, assuring the immediate availability of funds to the final beneficiary.

Full-time availability
24 hours every day, including no-business days.

Convenience
Simple experience for end users. Convenient for businesses.

Low-cost functionality
No fees for people. Low cost for businesses, considering a very competitive market

Versatility
Multi-solution framework for payments and transfers, regardless of type or amount of the transaction, throughout a broad range of customer segments: people, businesses and governmental entities.

Integrated processing
Funds and information go hand in hand, facilitating the process automation and conciliation of payments.

Open environment
As an open payment scheme, Pix transactions can be performed between any payment institutions or financial institutions that comply with the Scheme's access rules, which are objective, risk-based, and publicly disclosed.

Safety
Robust mechanisms and measures to ensure the security of the transactions and information used.

Fonte: https://www.bcb.gov.br/estabilidadefinanceira/pix

Payment Identifiers: Same Concept, Different Implementations

Both Pix and Zelle were designed to eliminate the need for users to share complete bank account details when sending or receiving money.

With Zelle, customers link their bank account to an email address or U.S. mobile phone number.

Pix expands this concept by supporting additional identifiers, including: ID CPF / CNPJ, mobile phone number, email and random Pix Key

This broader range of identifiers provides greater flexibility for both individuals and businesses while supporting a wider variety of payment scenarios.

In both ecosystems, the objective is the same: making the movement of money as simple as sending a message.

It is also worth noting that **both platforms support QR Codes** as an alternative payment initiation method, allowing users to send and receive payments without entering contact information or payment identifiers manually.

Scope of Services: Where Zelle Focuses Its Value Proposition

Zelle was developed to simplify the movement of money between bank accounts by offering an experience fully integrated into participating financial institutions' digital banking platforms.

Core Capabilities:

Send Money Enables real-time transfers directly between eligible bank accounts. Users simply select the recipient using a registered email address, mobile phone number, or other supported identifier.	**Request Money** Allows users to request payments from friends, family members, or customers using their registered contact information, simplifying day-to-day collections.
Receive Money Funds are deposited directly into the recipient's linked bank account without the need to maintain balances in a digital wallet or perform additional transfers.	**Split an Expense** Available through certain participating financial institutions, this feature allows users to divide shared expenses, such as restaurant bills, travel costs, or group activities, among multiple participants.

While Pix has evolved into a broader payment ecosystem, Zelle has also expanded beyond its original purpose by introducing additional features such as **payment requests** and **bill splitting**.

Nevertheless, Zelle remains primarily focused on transfers between individuals and small businesses, whereas Pix has evolved into a broader platform encompassing payments, collections, financial services, and Open Finance integration.

Expanding Use Cases: One of Pix's Greatest Strengths

One of Pix's most distinctive characteristics is the breadth of use cases it has incorporated since its launch.

Although it quickly gained popularity as a person-to-person payment solution, Pix rapidly evolved into a comprehensive payment infrastructure supporting virtually every type of everyday financial transaction.

Today, Pix enables payments across a wide range of scenarios, including retail purchases, business transactions, government payments, public services, and financial products.

Pix can be used for:

- **Person-to-person transfers:** sending money instantly between individuals.
- **Merchant payments:** in-store and e-commerce purchases.
- **Payments to service providers:** freelancers, professionals, and businesses.
- **Business-to-business transactions:** payments between suppliers, partners, and corporate customers.
- **Government payments:** taxes, fees, fines, and public services through **PagTesouro**.
- **Bill payments:** including payment slips and other billing instruments.
- **Utility payments:** electricity, telecommunications, water, and other essential services.
- **Social contributions:** such as FGTS and other government collections.

The infrastructure also supports the collection of taxes, government fees, fines, and social contributions, significantly expanding its role within Brazil's economy.

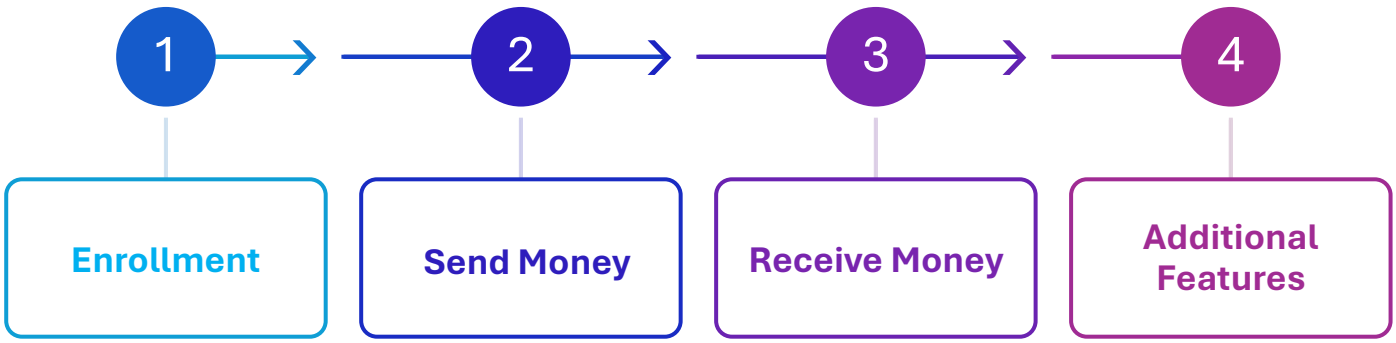
This versatility transformed Pix from a simple instant payment solution into a comprehensive payment platform serving consumers, businesses, and government entities through a single infrastructure.

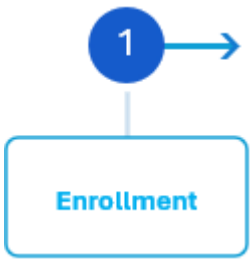
The User Journey: How Zelle Works

Zelle was designed to deliver a simple, intuitive, and fully integrated banking experience.

Unlike standalone digital wallets such as Venmo and PayPal, users do not need to download a separate application. If their financial institution participates in the Zelle network, the service is already available within the institution's online banking platform or mobile app.

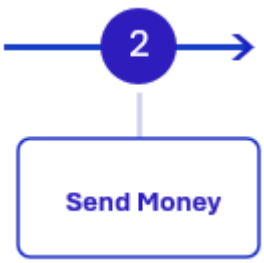
The user journey can be summarized in four steps:





Before using Zelle for the first time, customers complete a one-time enrollment by linking their bank account to a U.S. mobile phone number, an email address, or at participating institutions a **Zelle® Tag**.

Once completed, this information becomes the customer's unique identifier within the Zelle network.



To initiate a transfer, users select **Send Money**, choose the recipient using the registered identifier, enter the transfer amount, and may optionally include a payment description.

Before the payment is submitted, the application displays the recipient's name for confirmation – a critical step given that Zelle payments are generally irreversible once processed.

After confirmation, the funds are sent directly to the recipient's bank account.

Completing the User Journey

3

Receive Money

When the recipient is already enrolled in Zelle, funds are typically deposited into the linked bank account within minutes. If the recipient has not yet enrolled, they receive an email or SMS containing instructions to complete the enrollment process through their financial institution. Once enrollment is completed, the funds are automatically credited to their account.

Unlike digital wallets, Zelle does not maintain stored balances. Funds always move directly between participating bank accounts.

4

Additional Features

Although Zelle is primarily recognized for instant transfers, the platform also offers additional capabilities that enhance everyday payment experiences.

Request Money:
Allows users to request funds from another individual using their registered email address, mobile phone number, or Zelle® Tag.

Split an Expense:
Available at selected financial institutions, this feature simplifies shared expenses by automatically calculating how much each participant owes.

QR Code Payments:
Some participating institutions also support QR Code* payments, allowing users to scan a code instead of manually entering an email address or phone number.

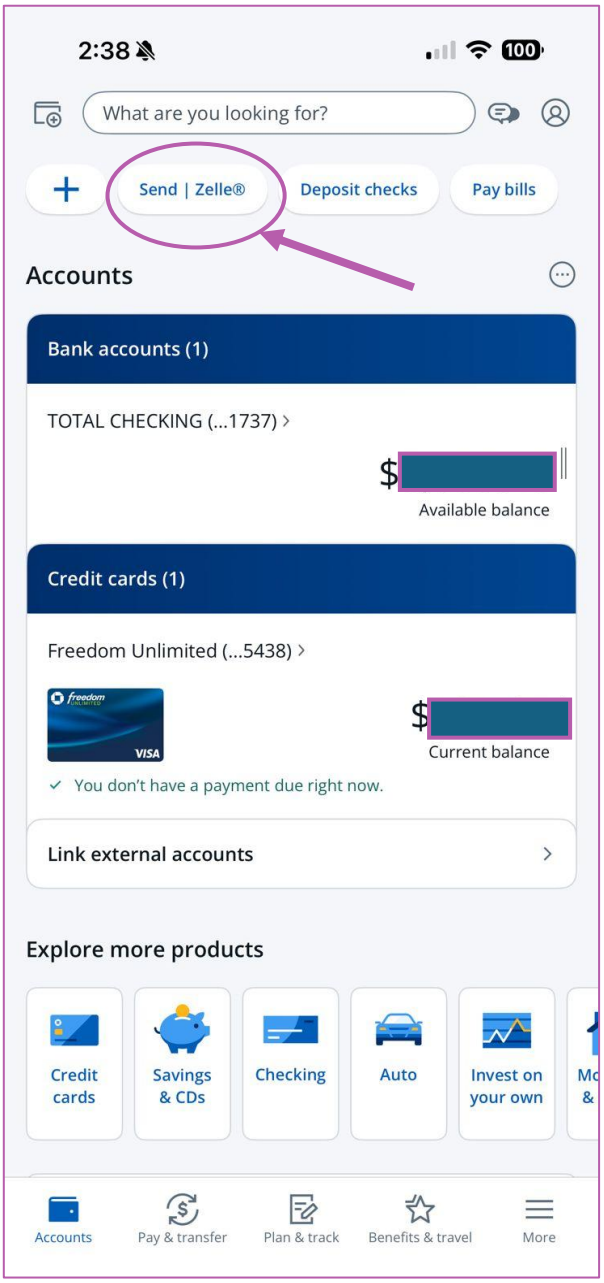
** It is important to note that QR Code functionality is not yet available across all participating institutions.*



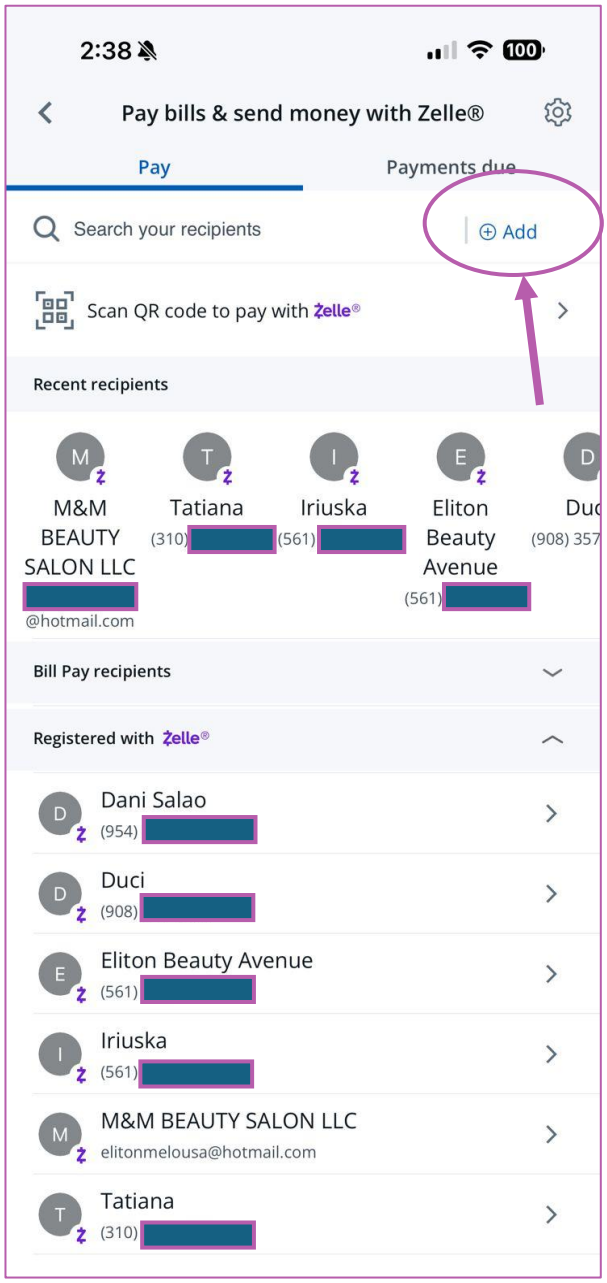
The **User Journey** (Continued)

Illustrative Screens from the Chase Mobile App

1) Select "Send with Zelle®



2) Add a New Recipient



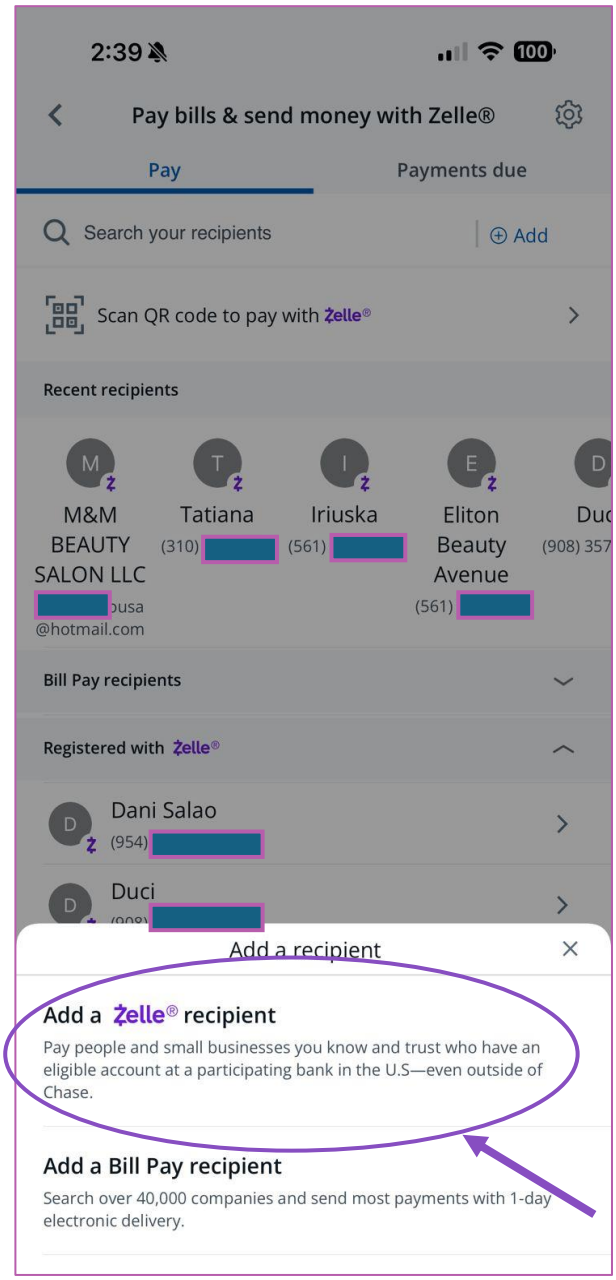
From the mobile banking app, the user selects **Send with Zelle®**.
If this is the first transfer to a particular recipient, the user taps **+ Add** to register a new contact.

Once the recipient has been added, future transfers can be initiated directly from the saved contact list.

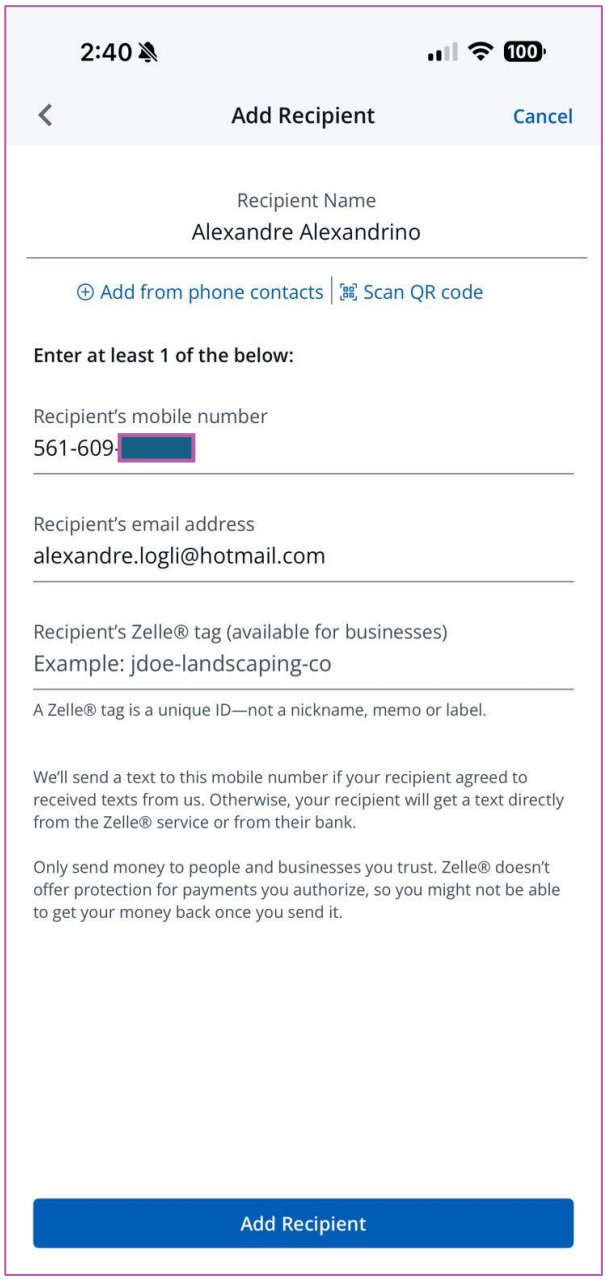
The **User Journey** (Continued)

Illustrative Screens from the Chase Mobile App

3) Enter the Recipient's Information



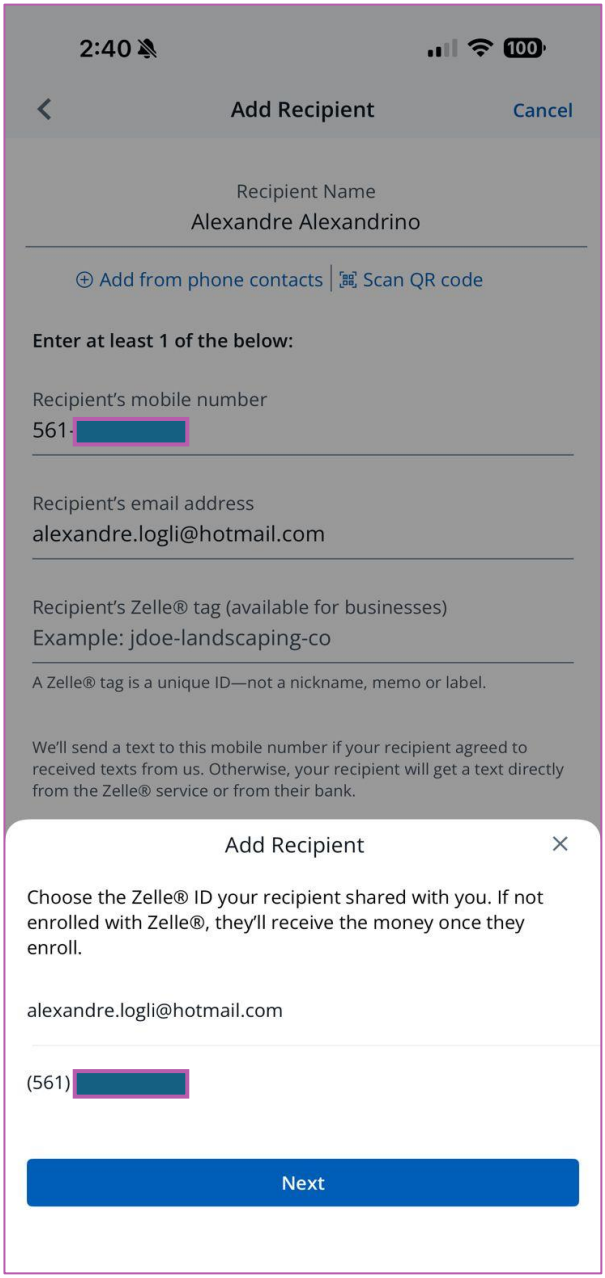
4) Review the Recipient's Details



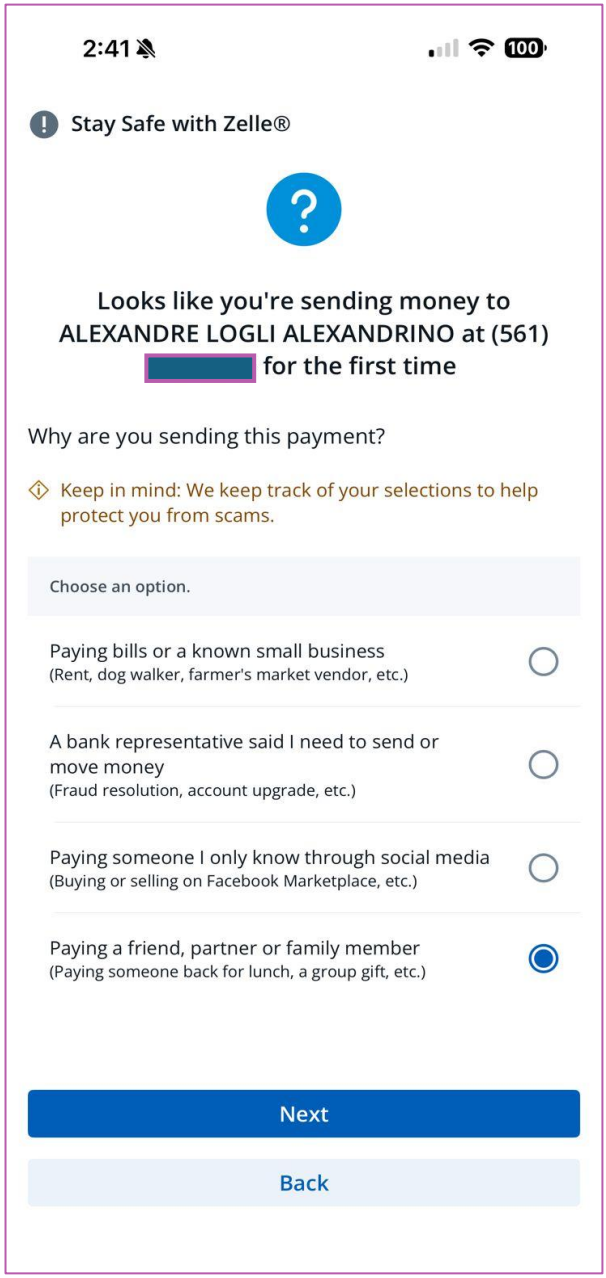
The **User Journey** (Continued)

Illustrative Screens from the Chase Mobile App

5) Confirm the New Recipient



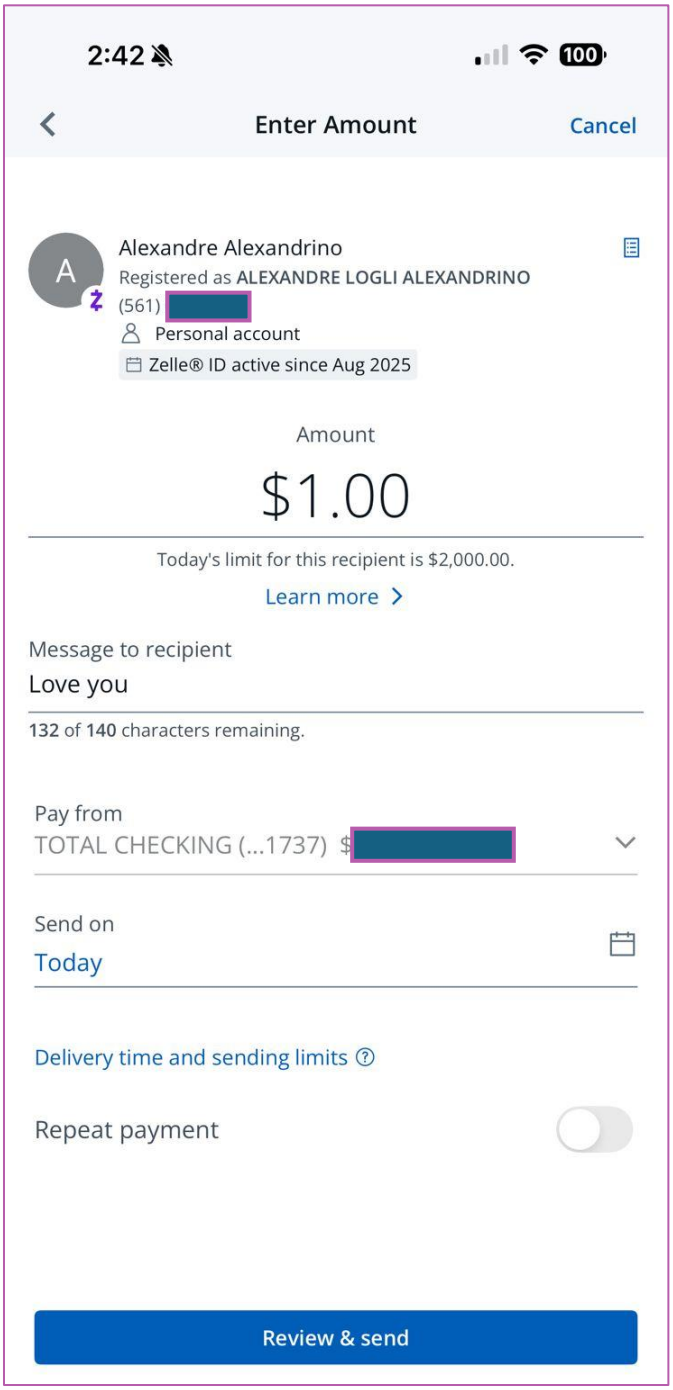
6) Select the Purpose of the Payment



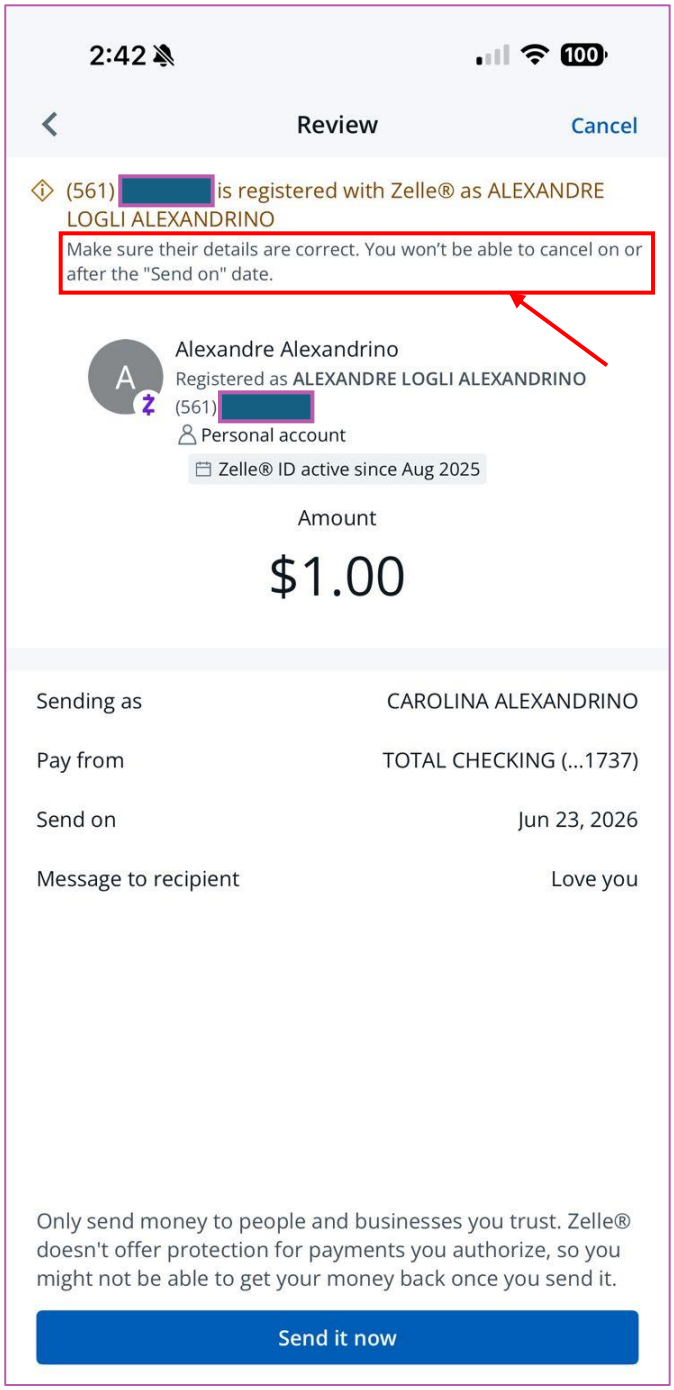
The **User Journey** (Continued)

Illustrative Screens from the Chase Mobile App

7) Insira o valor desejado



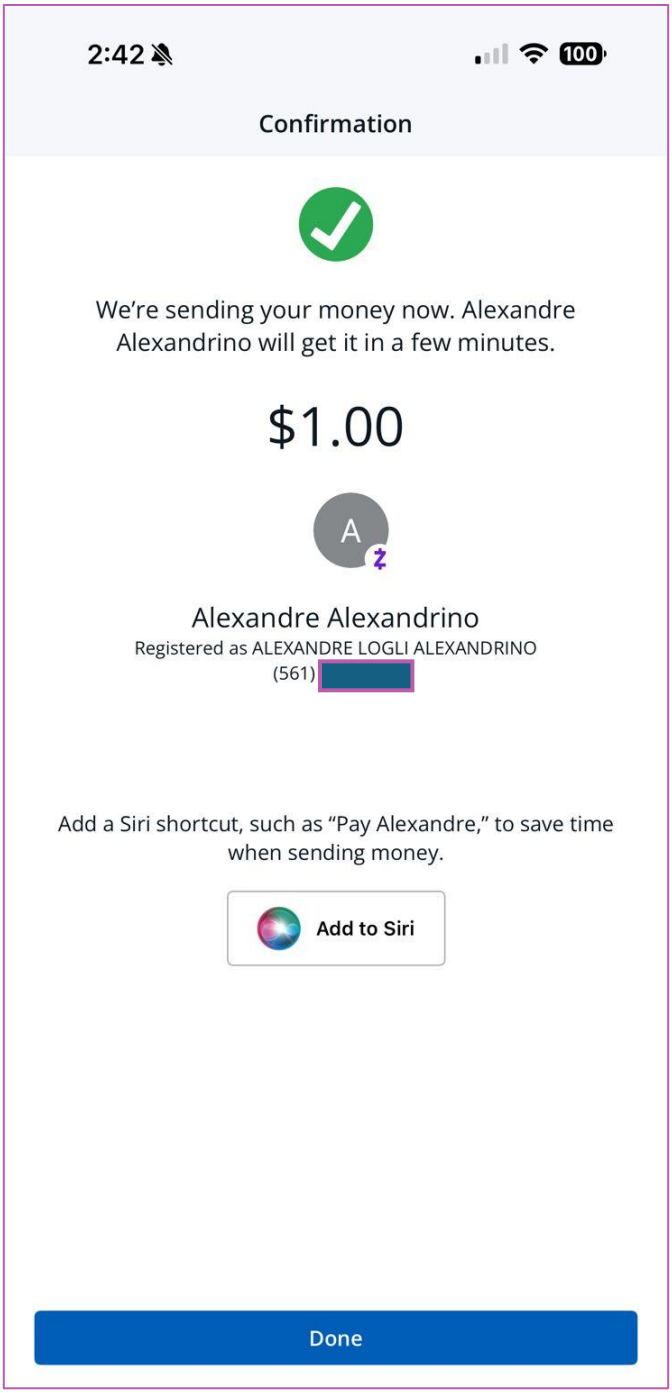
8) Confira as informações do destinatário, o valor e confirme



The **User Journey** (Continued)

Illustrative Screens from the Chase Mobile App

9) Payment Successfully Sent



Important:

(i) The screens included in the Zelle user journey were taken from **Chase Bank**.

(ii) The transfer steps are not fully standardized; therefore, the user journey may vary among participating financial institutions.

(iii) To make a transfer, the user selects the **Send Money** option. If this is the first transaction to a specific recipient, the user must add the recipient by entering their email address, U.S. mobile phone number, or **Zelle® Tag** *(where available)*. For subsequent transfers, the user simply selects the recipient already saved in the contact list.

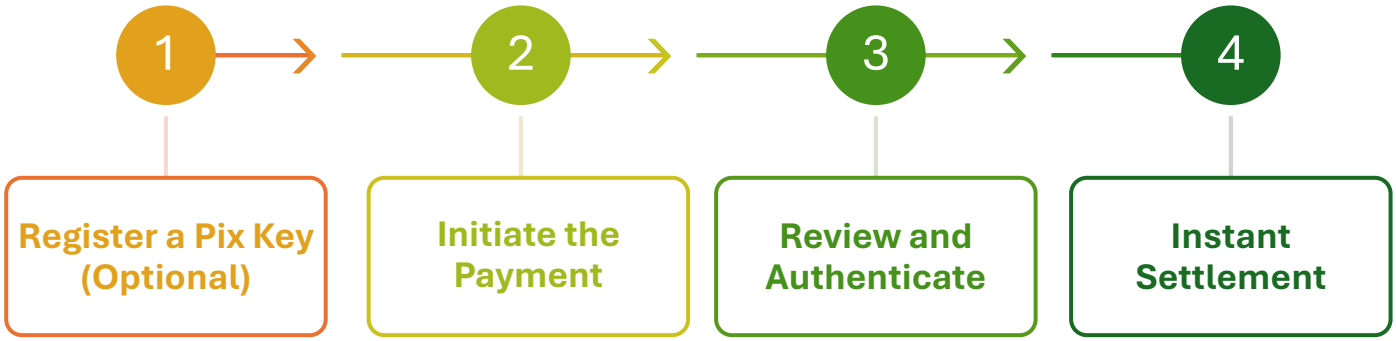
(iv) Prior recipient enrollment is a required step for sending the first transfer and is part of the fraud mitigation strategy adopted by the Zelle ecosystem.

(v) As with Pix, the recipient is notified when funds are received.

The User Journey: How Pix Works

Although Pix is just as simple to use as Zelle, it offers multiple ways to initiate a payment.

The Pix payment journey can also be summarized in four steps:





Users may register one or more Pix Keys, including:
Individual Taxpayer Number (CPF), Business Taxpayer Number (CNPJ), Mobile phone number, Email address, Random Pix Key.

It is important to note that registering a Pix Key is **optional**.



Pix offers multiple ways to initiate a payment, including:

- Entering a Pix Key;
- Scanning a QR Code;
- Manually entering bank account details;
- Selecting a saved contact (when supported by the financial institution);
- Using the **Pix Copy and Paste** feature;
- Initiating the payment through an **Open Finance Payment Initiation Service Provider (PISP)**.

This flexibility allows users to choose the payment method that best fits each situation.



The user verifies the recipient's information, enters the payment amount, and authorizes the transaction using the authentication method required by the participating financial institution.

The **User Journey** (Continued)

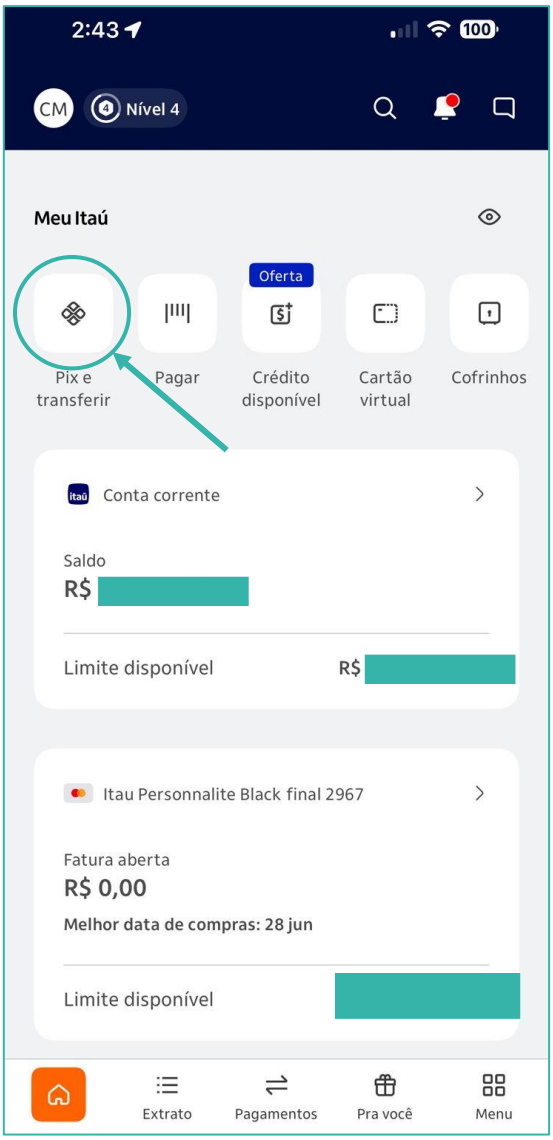
4

Instant Settlement

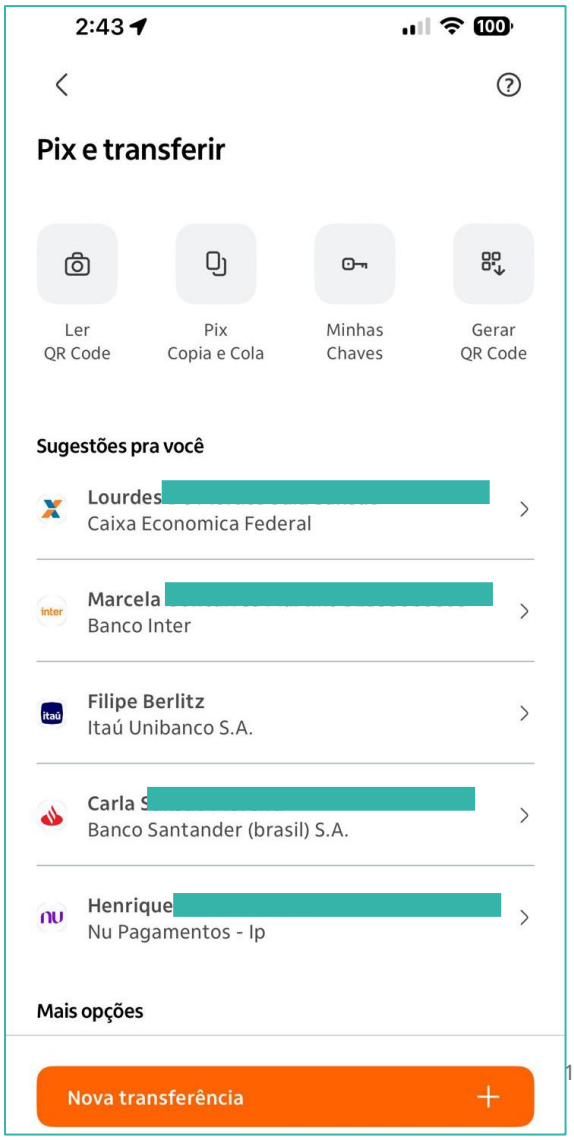
Once authorized, the payment is processed within seconds, and the funds become immediately available in the recipient's account.

This **flexibility** has enabled Pix **to expand** well beyond person-to-person transfers, supporting merchant payments, recurring transactions, business collections, and a wide range of digital financial services.

1) Select **Pix**

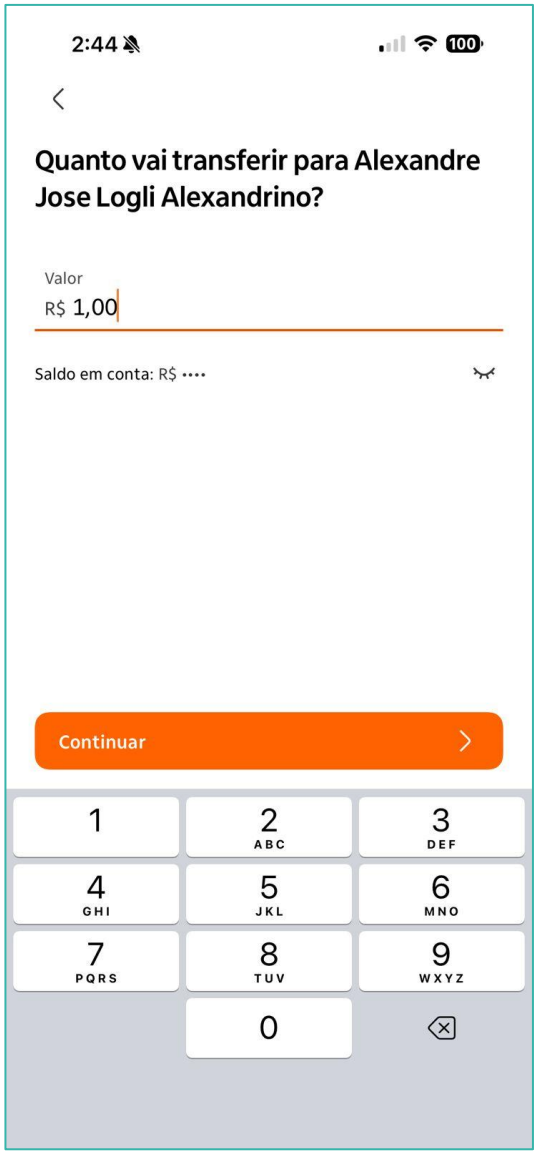


2) Choose How to Initiate the Payment



The **User Journey** (Continued)

3) Enter the Payment Amount



After selecting the recipient, the user enters the amount to be transferred.

4) Review the Transaction

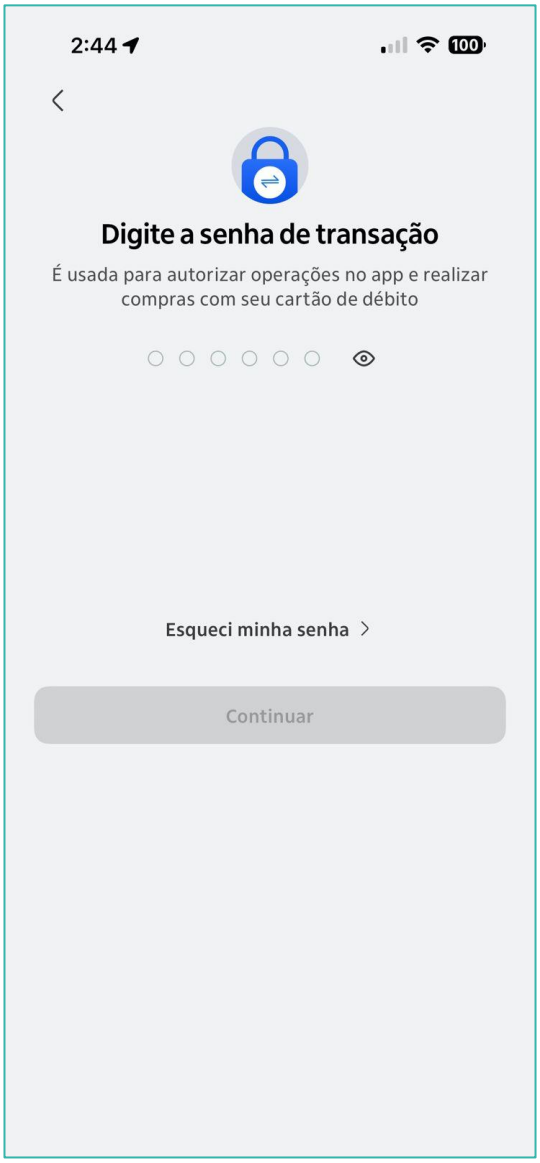


Before authorizing the payment, the application displays a summary including:

- Recipient's information;
- Transfer amount;
- Payment details (when applicable).
- The user reviews the information and confirms the transaction.

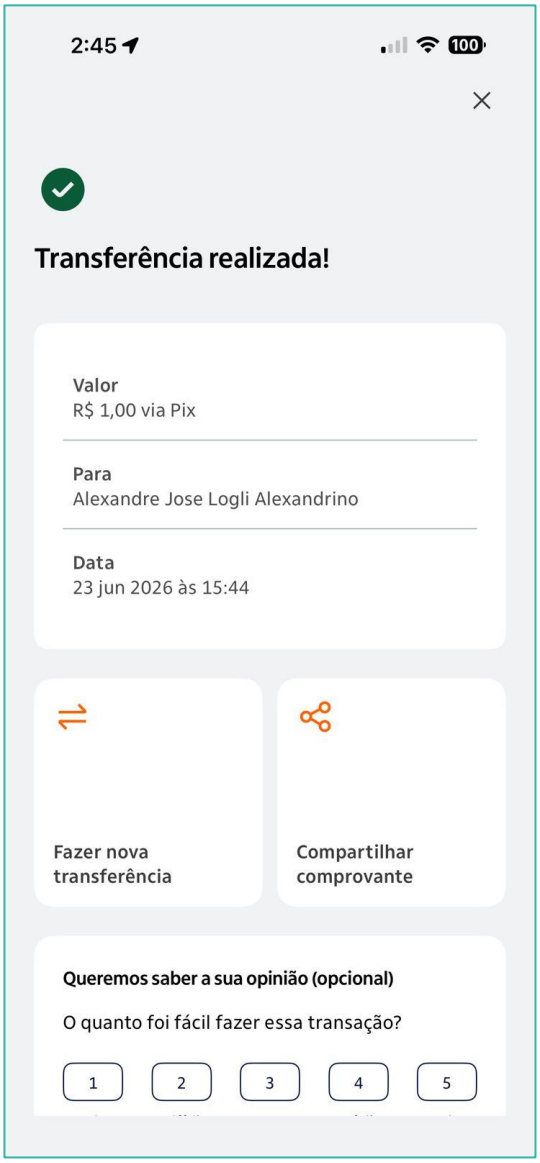
The **User Journey** (Continued)

5) Authenticate the Transaction



The user authenticates the payment using the security mechanism defined by the financial institution, such as a password, biometric authentication, or another approved authentication method.

6) Payment Successfully Completed



Once authenticated, the payment is processed in real time.
The recipient receives the funds within seconds, and both parties receive confirmation of the completed transaction.

Essential Standards for an Effective Pix Experience

Behind Pix's simplicity lies a comprehensive set of standards that every participating financial institution must follow to deliver a secure, consistent, and efficient payment experience.

https://www.bcb.gov.br/en/financialstability/pix_en



Since its inception, one of Pix's core design principles has been to provide a simple, intuitive, and consistent user experience, regardless of the financial institution chosen by the customer.

To achieve this objective, the Central Bank of Brazil established a set of **mandatory user experience requirements** applicable to all participating institutions.

These requirements standardize not only the functionalities offered, but also, terminology, navigation flows, user messages, transaction receipts, notifications, security mechanisms, and payment initiation methods.

As a result, Pix users encounter a highly consistent experience across different financial institutions.

Whether using Itaú, Banco do Brasil, or any other participating institution, customers navigate interfaces that follow similar logic, terminology, and interaction patterns.

This consistency reduces the learning curve, increases user confidence, and has been a key factor supporting Pix's rapid nationwide adoption.

Unlike Pix, Zelle does not establish the same level of standardization across participating institutions, allowing each financial institution greater flexibility in designing its own user experience.

Availability and Reach

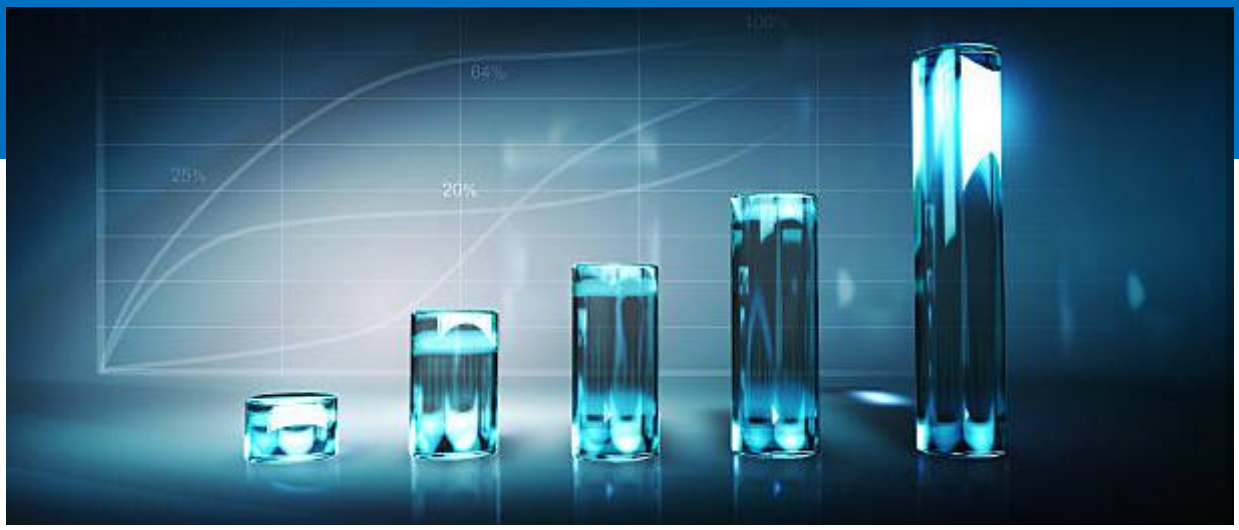
Pix was designed to operate continuously, **24 hours a day, 7 days a week, including weekends and public holidays.**

In addition, the Central Bank of Brazil establishes minimum availability requirements that all participating financial institutions must meet.

With Zelle, users also experience what appears to be near-continuous availability.

However, the service relies on the integration of more than 2,400 financial institutions, each operating its own technology infrastructure and operational processes.

Despite their different institutional models, both Pix and Zelle provide users with a fast and reliable instant payment experience.



Pricing and Economic Model

Another important distinction relates to pricing. In Brazil, the Central Bank established regulatory rules that make Pix transactions **free of charge for individuals in most use cases.**

In the United States, no equivalent regulatory requirement exists for Zelle. Each participating financial institution is free to define its own pricing policy.

Today, the vast majority of U.S. financial institutions offer Zelle at no cost to their customers. However, this is a commercial decision made by each institution rather than a regulatory requirement.



Fraud Prevention and Risk Management

The rapid growth of instant payments has introduced new challenges for financial institutions and payment system operators around the world.

In Brazil, Pix's **centralized governance model** has enabled the implementation of common fraud prevention mechanisms across the entire ecosystem. These include: (i) Transaction limits during nighttime hours; (ii) Information sharing on suspicious accounts; (iii) Real-time transaction monitoring; (iv) The Special Refund Mechanism (MED) for eligible fraud cases.

In the United States, fraud prevention strategies are implemented independently by each financial institution participating in the Zelle network. As a result, banks may adopt different approaches to risk assessment, fraud detection, customer protection, and transaction monitoring.

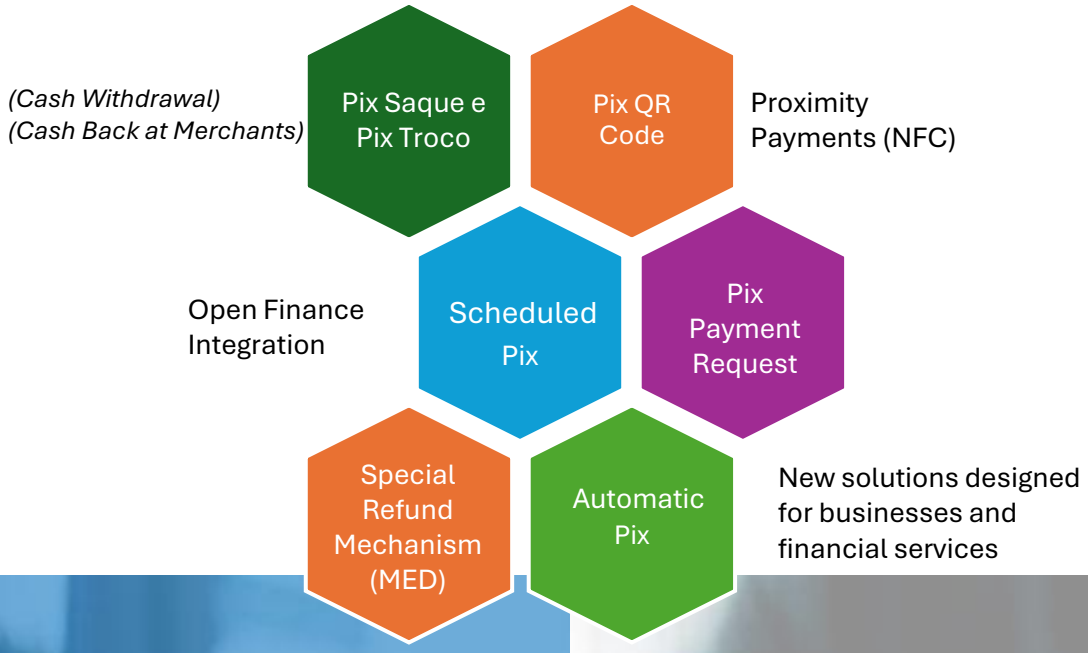
Once again, the comparison highlights two distinct governance philosophies: **Pix centralized standards** established by the Central Bank of Brazil **and Zelle decentralized risk management** implemented by each participating financial institution.

Ecosystem Evolution

Perhaps the greatest difference between Pix and Zelle lies in the pace and scope of their evolution.

Since its launch in November 2020, Pix has evolved far beyond an instant payment solution, becoming a comprehensive digital payment platform.

Over the years, several new capabilities have been incorporated into the ecosystem, including:



By contrast, Zelle has remained focused on its original purpose: **enabling instant bank-to-bank transfers between consumers and small businesses.**

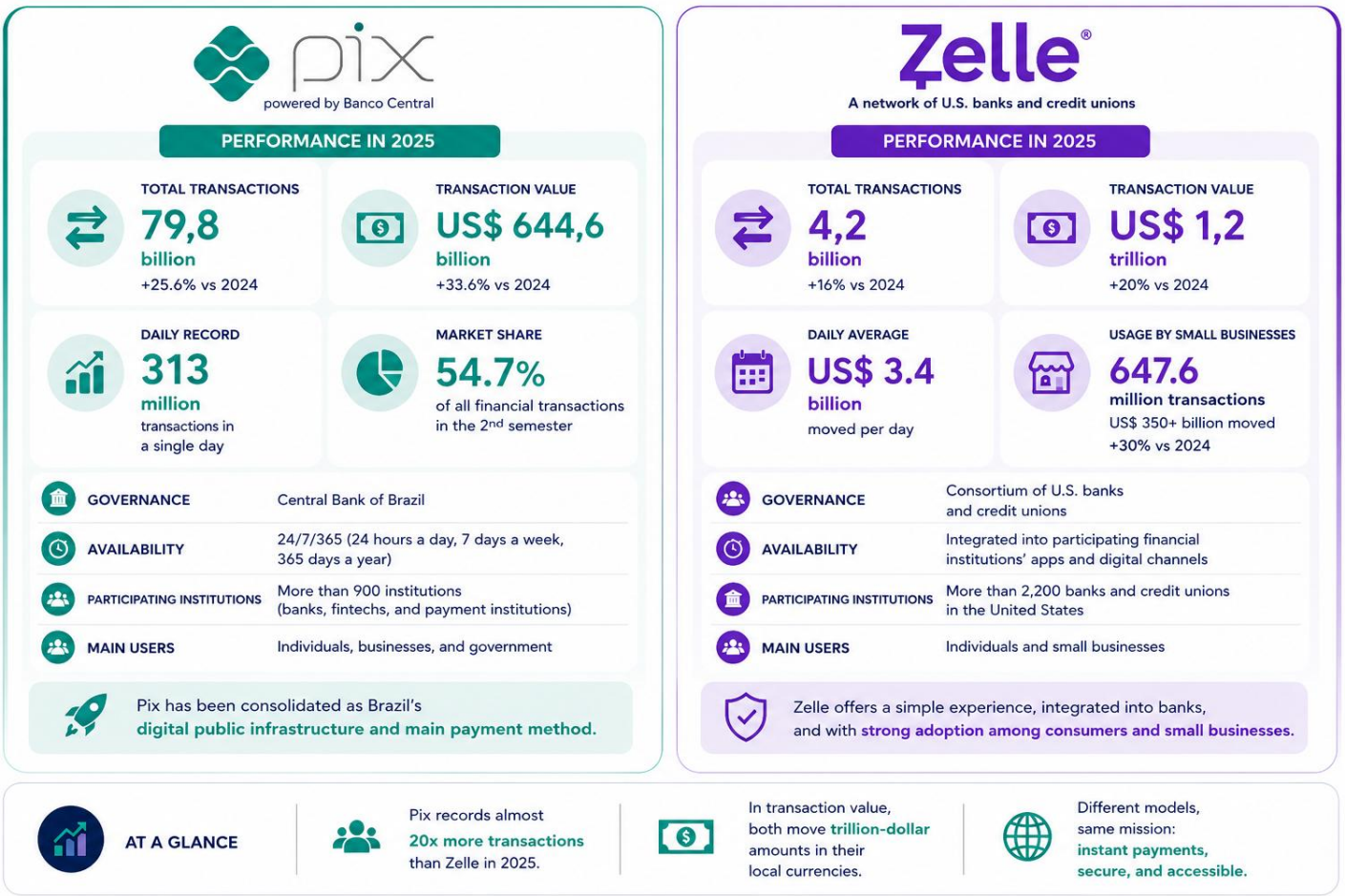
This difference once again reflects the distinct strategic objectives of each initiative.

While Zelle modernized the bank transfer experience, Pix has evolved into a national payment infrastructure supporting innovation across multiple areas of Brazil's financial system

Ecosystem Scale

Although Pix and Zelle were developed within very different economic, regulatory, and institutional environments, both have achieved remarkable scale in their respective markets.

2025 Numbers:



The comparison illustrates the impressive reach of both ecosystems.

While Zelle processes an extraordinarily high value of transactions within one of the world's most highly banked markets, Pix records a significantly higher transaction frequency, reflecting its widespread adoption as the primary payment infrastructure for consumers, businesses, and government entities throughout Brazil.

Zelle® Fast Facts: History, Data Points and Common Questions | Zelle
https://www.zelle.com/data-center

Numbers Pix
https://www.bcb.gov.br/estabilidadefinanceira/pix-em-numeros-estatisticas

Pix and Zelle: Executive Comparison

Although both Pix and Zelle were designed to make instant payments faster, simpler, and more accessible, they have evolved through distinct governance models, implementation strategies, and ecosystem development paths. The comparison below summarizes the defining characteristics of each ecosystem.

Category	Pix BR	Zelle US
Launch	November 2020	July 2017
Governance Model	Central Bank of Brazil	Early Warning Services (Bank Consortium)
Infrastructure	Public	Private
Participants	Financial institutions authorized by the Central Bank	More than 2,400 participating financial institutions
User Experience	Standardized by the Central Bank	May vary by financial institution
Recipient Identification	CPF, CNPJ, phone number, email, Random Pix Key, QR Code	Phone number, email, Zelle® Tag, QR Code (where available)
Availability	24/7/365	Availability depends on each participating institution
Pricing for Individuals	Generally free, as established by the Central Bank	Defined by each institution's commercial policy
Person-to-Person Transfers	✓	✓
Merchant Payments	✓	Limited
Government Payments	✓	✗
Payment Requests	Pix Cobrança	Request Money
Recurring Payments	Automatic Pix	Not available
Open Finance Integration	✓	✗
Ecosystem Evolution	National payment infrastructure	Bank-to-bank transfer network



Final Thoughts: More Than a Comparison

Comparing Pix and Zelle only by the speed of their transactions means looking only at the surface.

- ✓ Both are successful initiatives.
- ✓ Both process billions of transactions.
- ✓ Both have transformed the user experience in their respective markets.

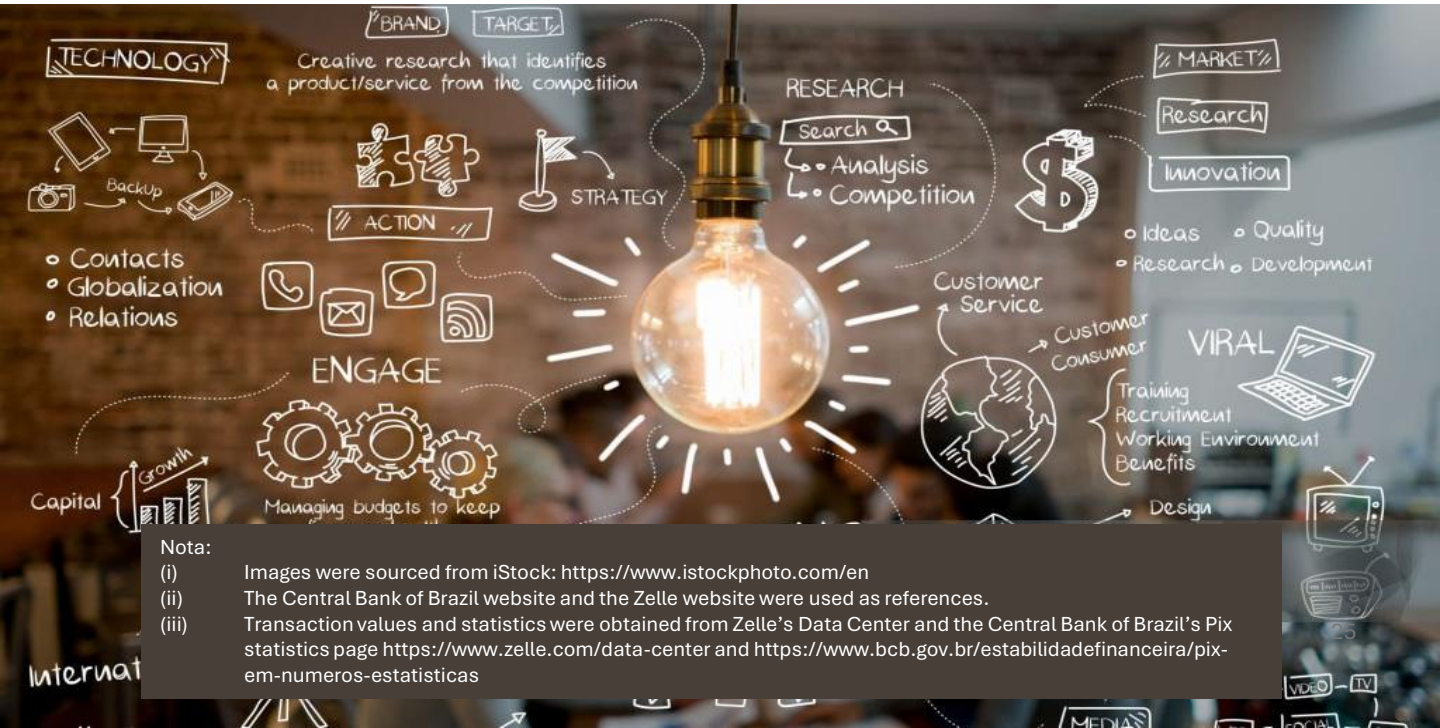
Yet they represent different visions of how financial infrastructure can be built.

"Zelle illustrates how a private-sector consortium can successfully coordinate a large-scale payment network within a highly banked market. Pix illustrates how public infrastructure can accelerate innovation, foster competition, and create the conditions for new business models to emerge".

Carolina Sansão M. Alexandrino – Co-Creator of Pix

Rather than determining which system is better, this comparison reveals a more important insight: **there is no single path to modernizing payments**. Different models can produce meaningful results when they are designed in alignment with each country's characteristics, market structure, and institutional needs.

The true value of this comparison is not in identifying a winner, but in understanding how different models of governance, regulation, and collaboration can drive financial innovation at scale.



Nota:
(i) Images were sourced from iStock: https://www.istockphoto.com/en
(ii) The Central Bank of Brazil website and the Zelle website were used as references.
(iii) Transaction values and statistics were obtained from Zelle's Data Center and the Central Bank of Brazil's Pix statistics page https://www.zelle.com/data-center and https://www.bcb.gov.br/estabilidadefinanceira/pix-em-numeros-estatisticas

About the Author



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- Carolina Sansão M. Alexandrino has **28 years of experience** in Information Technology, Digital Transformation, and Project Management, including more than two decades dedicated to the financial sector.
- She is a **Co-Creator of Pix** and actively participated in the development of major initiatives led by the Central Bank of Brazil, including Open Finance and Drex, Brazil's central bank digital currency initiative.
- Her areas of expertise include **financial innovation, instant payments, cybersecurity, governance, and financial market infrastructure**, with significant experience in nationally relevant projects.
- She is the **Founder of the ClearFi Institute**, an initiative dedicated to producing research, analysis, and thought leadership on innovation, trust, and financial transformation.
- Carolina **currently lives in the United States**, where she follows the evolution of the U.S. financial market and develops comparative studies on global payment and financial services ecosystems.

About ClearFi Institute

ClearFi Institute is an independent initiative dedicated to producing research, white papers, and analysis on payments, financial innovation, governance, cybersecurity, and digital transformation. Its purpose is to contribute to the technical and strategic debate on the evolution of the financial system.

