

FINTECH 2.0: DIGITAL TRANSFORMATION & ITS TRENDS AND CHALLENGES IN INDIA

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Abstract:

Fintech is a type of financial technology that has been developed over the last few decades. The fintech sector has been significantly impacted by digital transformation, which has changed how customers engage with financial services, how businesses run, and how financial products and services are created. This paper presents a conceptual overview to understand the rapid and successful growth of emerging Fintech industry. Firstly, the factors that influence financial technology adoption, including the challenges, current trends and the impact of digital transformation in the fintech industry, are identified. Secondly, the Fintech sector is anticipated to be influenced by market trends such as the rising usage of sophisticated technologies, the popularity of digital banking, and the emergence of blockchain technology. Thirdly, new financial services and products are being created, as well as current ones' efficiency and security, using digital technologies like AI, ML, and blockchain. Finally, new legislative frameworks and rules to safeguard customers are anticipated as a result of the growing attention on cybersecurity and data privacy. This study also covers a few Indian fintech start-ups, such as Cred, Zest Money, Paytm, PhonePe, Razorpay, and Policy Bazaar, along with a basic overview of each company and a market valuation of the country's unicorn fintech companies. This was stated to emphasize how important these businesses were to the expansion of the Indian economy. Fintech start-ups and innovative concepts have significantly changed the look of Indian financial services.

Keywords: fintech, fintech 2.0, Regtech, InsurTech, Blockchain, crowdfunding, peer to peer lending, AI (Artificial intelligence), Unicorn

INTRODUCTION

The word 'Fintech,' a short version of the phrase financial technology, refers to a sector made up of businesses that employ technology to provide efficient financial services. It is a new form of service in the twenty-first century. Financial institutions and fintech businesses are expanding their investment in and acceptance of digital technology, which is driving the fintech digital transformation market to see significant growth. New financial products and services are being created, as well as current ones' efficiency and security, using digital technologies like AI, ML, and blockchain. By utilising technology in financial sectors for mobile payments, loans, money transfers, and even asset management, new start-up organisations are attempting to replace the existing transaction system with new, effective approaches. Peer-to-peer lending, peer-to-peer payment technology, digital wallets, Block chain, and mobile banking are some more examples of technology used in financial transactions. These are aimed at providing additional advantages and attaining high efficiency in financial transactions. They also contribute to lower consumer expenses. Together with China, India has the greatest adoption rate of fintech internationally. Until 2023, the \$65 billion in digital payments value is projected to increase at a CAGR of 20%. (BFSI).

Today's fintech sector is a multi-billion-dollar industry. Some of the emerging markets featuring Fintech firms include Silicon Valley, London, China, and India. A wide range of products, technologies, and business models are referred to as "fintech," and they allow, advance, and transform the financial services sector. Commercial enterprises now need to go through digital transformation in order to draw in and keep customers' attention. Businesses now use Fintech technologies to conduct accounting and payment activities digitally, increasing operational efficiency. By enhancing choice and accessibility to financial services and improving operational efficiency, these technologies may help both consumers and businesses. They can also encourage more competitiveness in areas like the elimination of international barriers.

FINTECH 2.0

The core of the Fintech 2.0 strategy is what is known as "rebundling": effortlessly merging all the components a consumer needs to manage their finances in a one location.

In the coming years, India will enter FinTech 2.0. The country offers an excellent environment for a FinTech revolution because of a variety of factors, including an innovative start-up scene, a highly favourable market,

improved smartphone and internet penetration levels, a young population, and government-led efforts to promote the sector. Additionally, the growing public awareness of financial technology has been very advantageous for the Indian FinTech industry.

FINTECH INNOVATIONS/PRODUCTS

- Artificial Intelligence (AI)
- Cloud technology
- Robotic Process Automation
- Internet of Things
- Digital Transformation
- Advanced Analytics
- Blockchain and Crypto currency
- Cybersecurity

REVIEW OF LITERATURE

Using the internet and automated information processing, fintech companies offer financial solutions (Gabor & Brooks, 2017; Milian, Spinola, & de Carvalho, 2019; Zavolokina et al., 2016; Alt, Beck, & Smits, 2018; Gomber, Kauffman, Parker, & Weber, 2018; Puschmann, 2017).

There has been an explosion of new financial technology (Fintech) worldwide, according to Kavuri, A. S., and Milne (2018). As a result, during the past five years, academic writing on Fintech has significantly increased. Research often lacks a clear research aim and is just loosely related. There are still significant research gaps and crucial questions. Before this field is considered an established academic subject, more work has to be done.

Thakor, A. V. (2019) This essay examines the relationship between fintech and banking. Fintech encompasses advancements in payment methods (including cryptocurrencies), credit markets (including peer-to-peer lending), and insurance, with a focus on smart contracts supported by blockchain technology.

Allen and co. (2020) Financial systems and intermediation might be disrupted by fintech, in particular by the blockchain.

OBJECTIVE OF STUDY:

1. To present a conceptual overview to understand the rapid and successful growth of emerging Fintech industry.
2. To identify the factors that influence financial technology adoption, including the challenges, current trends and the impact of digital transformation in fintech industry.

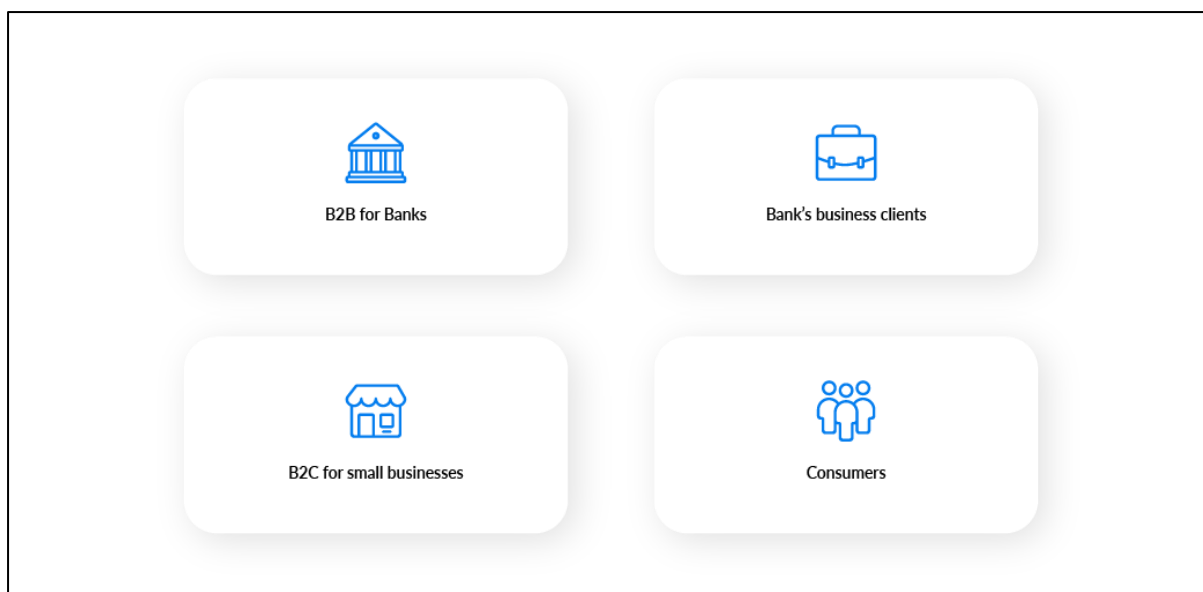
DEVELOPMENT OF FINTECH IN INDIA

One of the world's Fintech marketplaces with the quickest growth rates is India. After the United States, India is known for having the second-highest number of start-ups in the fintech industry. According to Niti Aayog, India's fintech market would reach USD 31 billion by 2020. In terms of the fintech revolution, India has been in the forefront. In the Indian market, investments of USD 6 billion have already been made. The emergence of several financial start-ups in India as well as the entry of international FinTech firms has been fuelled by the rising popularity of the digital economy. Investor enthusiasm in this area is also quite high.

Adoption of Fintech in India: According to EY's FinTech Adoption Index 2017, India has advanced to become the market with the second-highest FinTech adoption rate (52%) among 20 economies globally. FinTech adoption in India has expanded dramatically over the previous two years. Over the past years, India has seen a significant increase in the use of fintech. The market for Indian fintech is expected to be worth \$50 billion in 2021 and \$150 billion by 2025.

The most popular sectors were Payments, Lending, Wealth Technology (Wealth Tech), Personal Finance Management, Insurance Technology (Insurtech), Regulation Technology (RegTech), and many more subsegments make up the Indian Fintech business ecosystem. India has 23 fintech start-ups that, as of July 2022, have achieved "Unicorn Status" with a valuation of over \$1 Bn. 358 banks were participating in India's Unified Payments Interface (UPI) as of September 2022, and there were 6.8 billion transactions totalling more than \$135 billion. Currently, there are 187 unicorns in the fintech sector worldwide, with 21 of them located in India.

Figure 1: FinTech Users



(Sources: FinTech Users | Gate Hub)

The reasons listed above are significant ones for Indian users to adopt financial technologies.

- Account creation is simple.
- A vast range of products and services are accessible
- Efficient work standards
- Effective and enjoyable online experience
- Affordable fees and rates
- 24/7 service availability
- More creative products are available than those offered by traditional financial organisations.

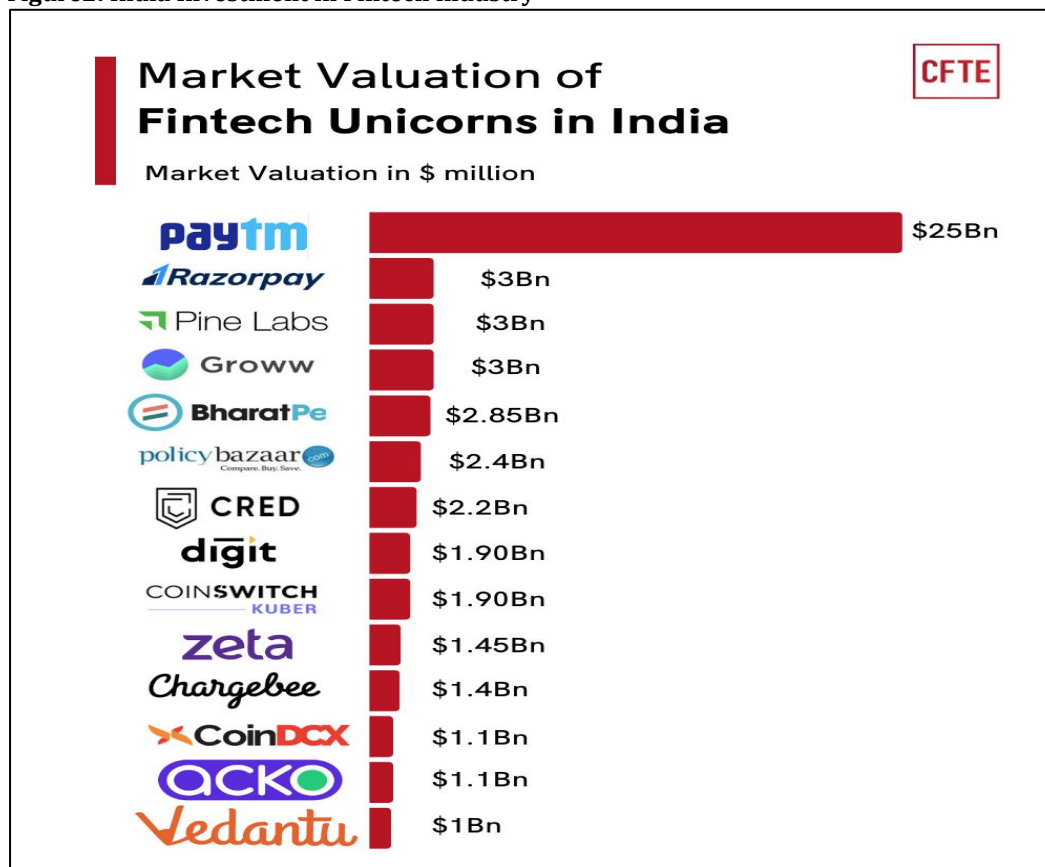
THE TOP FINTECH COMPANIES IN INDIA

Sr. No	Company Name	Established	Business products	Location	Founder
1.	Paytm	2010	Mobile payments, E-commerce, lending, insurance	Noida, Uttar Pradesh	Vijay Shekhar Sharma
2.	PhonePe	2015	Digital Payments, P2P payments	Bangalore, Karnataka	Sameer Nigam, Rahul Chari, Burzin Engineer
3.	Policy Bazaar	2008	Online Insurance	Gurgaon, Haryana	Yashish Dahiya, Alok Bansal, Avaneesh Nirjar
4.	Clear Tax	2011	E-filing Income tax returns, GST software, Trademarking	Bangalore, Karnataka	Archit Solanki
5.	Razorpay	2014	Financial products, Neobanking, E-commerce Fraud detection	Bangalore, Karnataka	Shashank Kumar, Harshil Mathur
6.	ZestMoney	2016	Cradlessemi, BNPL (Buy now pay later)	Bangalore, Karnataka	Lizzie Chapman, Priya Sharma, Ashish Anantharaman
7.	Acko	2016	Digital Insurance	Bangalore, Karnataka	Varun Dua
8.	Zerodha	2010	Online trading, financial networking.	Bangalore, Karnataka	Nithin Kamath and Nikhil Kamath
9.	Groww	2016	Offer insurance, loans and credit cards	Bangalore, Karnataka	Lalit keshre
10.	Cred	2018	Credit and lending, Payment	Bangalore, Karnataka	Kunal Shah

(Source: Top 10 Fintech Companies/Start-ups in India 2023 (placementpreparation.io))

<https://www.gapgyan.org/>

Figure2: India Investment in Fintech industry



(Source: Fintech Companies in India | Full List 2023 - CFTE)

The word "unicorn" has become linked with success in the startup ecosystem around the world, and it is something that is not restricted to India. Payments is the subsector with the highest number of unicorns developed; examples include Paytm, PhonePe, and BharatPe, which are fintech unicorns with a focus on payments.

DIFFERENT SECTORS IN FINTECH INDUSTRY:

➤ **Peer-to-Peer lending/Crowdfunding Platforms:** Crowdfunding systems enable internet users to send and receive money from one another through the platform and enable different people and businesses to pool money that may then be utilised for a variety of reasons. These are distinctive online platforms that let several users to pool their funds and pay another platform participant in tiny amounts. These platforms are especially useful for startups and small businesses, who often have trouble raising money. Compared to traditional banks, this method is favoured because it is hassle-free, it connects individuals with like interests, and typically the investors are highly passionate about the initiatives they finance.

Examples: ketto, Wishberry, Kickstarter, Indiegogo, FuelADream, Fundable, Milaap and Crowdera.

➤ **Blockchain and Cryptocurrency:** Bitcoin and Litecoin may be purchased or sold on cryptocurrency exchanges like Coinbase and Gemini in exchange for traditional fiat money or other assets. In addition to cryptocurrency, blockchain is crucial for keeping the database of transactions and avoiding fraud. An illustration of how blockchain technology may be used to stop counterfeiting is a blockchain service like Block Verify.

➤ **Mobile Payments:** One of the most frequently utilised fintech products today is mobile payment systems. Mobile payments are regulated forms of payment that are made digitally via a mobile device. Mobile wallets and mobile money transfers are both included in mobile payment. Mobile wallets are the electronic equivalent of the physical wallet you may keep in your pocket. It keeps track of credit or debit card information and available cash amounts for payments. Money transfers via mobile payments take place through the use of NFC technology (near field communication).

Example: Paytm, PhonePe, BHIM App, JioMoney wallet.

➤ **Insurance/ Insurtech:** FinTech includes insurtech as a subcategory. The Insurance is also known as 'Insurtech'. It covers everything linked to insurance, including data protection, house insurance, and auto insurance. Therefore, this invention is assisting those who wish to Buy, Sell, or store insurance plans online. Innovative smartphone apps, wearable technology, tools for processing claims, online policy management,

automated processing, etc. are all examples of insurtech in action. Additionally, insurtech is helpful in gathering and analysing client data, allowing the delivery of better and easier services.

Example: Policybazar, Acko.

➤ **Robo-Advising and Stock-Trading App:** A type of financial advice known as "robo-advising" involves little or no human involvement. By offering algorithm-based asset recommendations and portfolio management that have boosted efficiency and decreased costs, it has revolutionised the asset management industry. Investors may purchase and sell stocks with only a few taps on their mobile device by using stock trading applications. These applications have simplified the process and are affordable.

Example: Robo-Advising tools are Groww, Scripbox

Stock trading- Zerodha Kite app, Upstox Pro app, Angel Broking

➤ **Budgeting Apps:** All of the financial information can be found conveniently in one location thanks to budgeting applications, making it simple to keep track of a user's expenditures. When it came to managing their funds, consumers previously had to develop budgets, collect checks, or work with Excel spreadsheets. These budgeting tools have completely changed how customers view their finances.

Example: Walnut, FinArt, Goodbudget.

The Fintech Ecosystem in India Has a Range of Different Sub-Segments Like:

- Digital Payments
- Lending
- Wealth Tech (wealth technology)
- InsurTech (insurance technology)
- RegTech (regulation technology)

According to a survey by Credit Suisse, 70% of fintech Unicorns were involved in payments and digital lending.

Figure3: Fintech Unicorns



(Source: Fintech Companies in India | Full List 2023 - CFTE)

CURRENT TRENDS AND IMPACT OF DIGITAL TRANSFORMATION ON THE FINTECH INDUSTRY:

The development of fintech and the digital revolution have significantly changed the financial services sector. The banking sector is one of those that has been most impacted by this change since it depends on manual work and interpersonal connection. They have to develop new products and services and use new technologies in order to stay competitive.

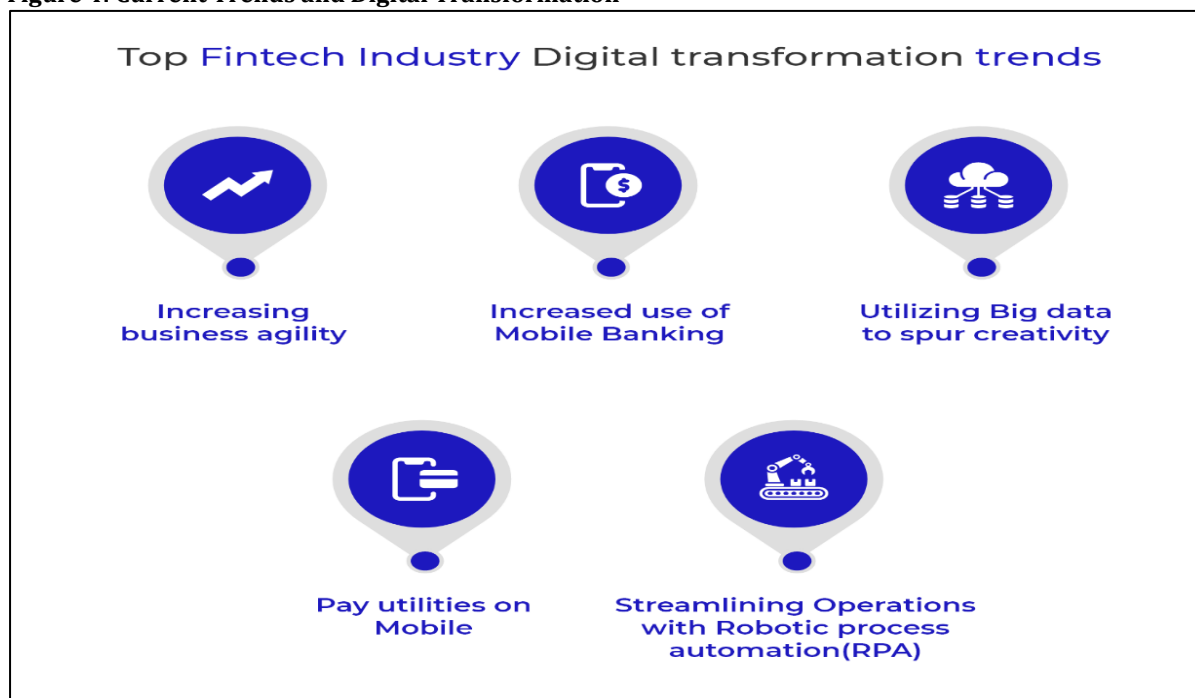
The digital transformation's main effects on the fintech sector are the following:

➤ **Rising use of mobile and internet banking:** The ability to view financial accounts and conduct transactions from anywhere, at any time, has been extended to consumers. As a result, more clients are using online banking services, and more transactions are being completed via digital methods.

➤ **Growth of alternative lending platforms:** These networks, like peer-to-peer lending platforms, let people and companies obtain funds without going through conventional financial institutions. It has also made it easier for people and businesses to acquire finance, increasing competition for established financial institutions.

- **The use of cutting-edge technology:** The Fintech sector has been significantly impacted by the usage of digital technologies such as Artificial Intelligence (AI), Machine Learning, and Big Data. These technologies are being utilised to create new financial services and products as well as enhance the efficacy and efficiency of those that already exist. For instance, AI-powered chatbots are being utilised to offer financial advice to consumers and to assist them in utilising digital banking services.
- **Advancement of blockchain technology:** Overall, the fintech sector has been significantly impacted by digital revolution. Traditional financial institutions must change with the times or run the danger of falling behind. However, the emergence of digital technology has also prompted the creation of new financial services and products, as well as a growth in the level of innovation and competitiveness in the fintech sector.

Figure 4: Current Trends and Digital Transformation



(Source: How Digital Transformation is Impacting the Fintech Industry? (linkedin.com))

MAJOR CHALLENGES OF FINTECH IN INDIA:

- **Lack of trust and security issues:** Security is the biggest risk when it comes to mobile banking, payment apps, and fintech in general. Traditional banks protect valuables with security guards, cameras, vaults, and sturdy bulletproof doors. When it comes to virtual security, a challenge arises as vulnerabilities tend to be more obscure and can have a greater impact on customers as they put not only their money but also their personal information at risk.

By implementing the measures can help your FinTech app become secure: Real-time notifications, behaviour analysis, data encryption, biometric authentication, and two-factor authentication.

Solution: Fintech companies have adopted a number of cybercrime solutions, but only Blockchain technology can effectively address this problem. The blockchain business must seek out the finest solutions as new sectors pop up every day.

- **Artificial Intelligence and Big database:** big databases present both opportunities and obstacles for Fintech technology providers. Big data and artificial intelligence are two essential technologies for any modern banking software. Most industry professionals are working with the belief that AI will soon change nearly every aspect of the financial services industry. Big data allows companies to collect and organize information about users, from names, family members and social status to financial behaviour, habits and in-app activity. All of this information is very important to a bank, especially when it comes to credit ratings and other high-risk banking services. Combined with big data, artificial intelligence can help you automatically detect fraud, perform risk analysis, and effectively manage transactions. However, these technologies are difficult to implement: they require special technical skills and ongoing maintenance.

Solution: Is to hire an expert in big data and AI and let them get to know your business inside and out to discover your needs and figure out how to meet them using best practices. in the industry.

- **Government Restrictions:** Finance is one of the industries with the most regulations. Even if your FinTech software is more conventional and doesn't make use of a blockchain or other unproven technologies, you still need to worry about government laws. Verify the legal conformity of your internal procedures and software, and if necessary, appoint a legal adviser to guide you through every step.

FINTECH: ROADMAP AHEAD: FinTech has the capacity and authority to significantly alter and reorganise the financial and banking services industry in India. The fintech sector is anticipated to keep expanding in the future because to rising investment and adoption of digital technology. Future developments in the fintech sector are anticipated to be influenced by market trends such the rising usage of sophisticated technologies, the popularity of digital banking, and the emergence of blockchain technology. More changes to the sector are likely to occur by 2025, including the widespread deployment of blockchain technology, the incorporation of AI and machine learning into financial services, and the creation of brand-new financial goods and services. Additionally, new legislative frameworks and rules to safeguard customers are anticipated as a result of the growing attention on cybersecurity and data privacy.

CONCLUSION

Modern technology is advancing quickly, and as a result, many innovations have been made that will make our lives easier. Technological advancements have made it possible for new kinds of financial organisations to arise that do not resemble banks or other traditional financial institutions, have little to no physical presence, yet provide all the services provided by traditional financial institutions and more. Firms that provide financial services via the use of technology are known as fintech companies. These structures can adapt to financial institutions, banks, etc. more swiftly since they generate quicker answers to consumer demands. Many concerns challenges and issues existing in Fintech platforms and they are clearly outlined in the above section in this paper.

The fintech sector has been significantly impacted by digital transformation, which has changed how customers engage with financial services, how businesses run, and how financial products and services are created. Future developments in the fintech sector are likely to be influenced by market trends including the rising usage of blockchain technology, modern techniques, and digital banking, all of which are becoming more and more popular. The most significant potential a country may provide with Fintech are therefore to improve customer service and user experience, avoid informality, increase financial inclusion and financial literacy, and attract investment.

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