



Fintech in India: Current Status, Trends & Prospects

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ABSTRACT: Today, when the whole world is moving towards the digitalization era, Finance is no longer an unexplored territory, and as technology advances, finance, too, has its own digital world. Presently, we are talking about fintech, which is a combination of finance and technology. It has moved the whole world to new dimensions. Now people can do millions of transactions with just one click. do any kind of investment and buy financial products with the evolution of technology. Fintech offers substitutes for traditional banking and non-banking finance services. In the financial sector, fintech is a new idea. Fintech offers digital transactions that are safer for the user. Fintech services' advantages include amicable users and operating expense reductions. From digitization to digitalization India has witnessed many things. But how far have people and their country moved? That is the research part. The present study is about India's journey towards adaptation of fintech. India has the fastest-growing fintech services globally. The Indian finance sector's routines and behaviour will alter as a result of the fintech offerings. The main domain of this study is India, with a large population accepting fintech, and how they face various challenges and opportunities.

KEYWORDS: Fintech, digitalization, digitization, banking

1. INTRODUCTION

We examine the stages of Fintech emergence to comprehend the evolution of a global identity ecosystem (Muthukannan et al., 2020). Although the concept of fintech may seem to be a recent innovation in technology, it has actually been around for a while. Early credit cards, developed in the 1950s, are typically regarded as the first fintech products made available to the general public since they eliminated the need for customers to carry actual currency in their daily lives. Mainframes used by banks and online stock trading platforms have both been incorporated as a result of fintech development. PayPal, one of the first fintech companies to run exclusively online, was founded in 1998. Since then, data encryption, social media, and mobile technologies have further changed this invention. We now frequently use social media-hosted payment options, blockchain networks, and mobile payment apps as a result of the fintech revolution. Fintech, or financial technology, is the use of technology

to offer cutting-edge goods and services in the financial industry (Muthukannan et al., 2020).

Due to the 2008 global financial crisis as well as the usage of modern technical advancements like social media, artificial intelligence (AI), and data analytics, Fintech has evolved into a new paradigm (Lee and Shin 2018). Start-ups, technology companies, governments, customers, and established financial institutions like banks make up the Fintech ecosystem (FE), which combines five components that interact synergistically to boost the economy, improve customer experience, and encourage social inclusion (Lee and Shin 2018). India, which has the second-largest internet user population, has quickly adapted to this financial technology environment. Around 20% of all domestic FinTech companies are in the payments sector, which has received the attention of both businesses and policymakers (Statista, 2022). Emerging technologically enabled trends that foster innovation have had a considerable impact on and influence over the financial services sector (Vijai, 2019).

Due to gaps in the literature, our understanding of the Fintech landscape is quite limited. Researchers are focusing more on the mature Fintech sector than on up-and-coming players like India. This paper presents a study that aims to fill the aforementioned gap. This paper's goal is to evaluate the existing literature and summarise the knowledge it offers for the void it fills. Following sections, which begins with a review of the Fintech literature and is followed by a section on the development and ecosystem of Fintech in India After that, we briefly go over the various facets of the fintech industry's growth before moving on to the potential and difficulties it faces. We draw a conclusion regarding what is known and unknown about the growth of fintech before wrapping up the subject. With the Scope of Research article, maybe this will help to establish the direction for additional research.

2. LITERATURE REVIEW

Finance evolves over time. Traditional banks, for example, are being supplanted by online banking, mobile banking, and peer-to-peer payments, which allow anyone to move funds between them (Muthukannan et al., 2020). This is due to digitization and digitalization. Digitization is paperless work nowadays, followed in any bank or industry. The stability of established financial ecosystems is decreased as a result of the digitalization of financial services, which diverts financial information flows away from established conventional financial infrastructures and traditional financial institutions (Gozman et al. 2018).

The emergence of Fintech, which altered the financial distribution method, caused upheaval in the current system (Hedman and Henningsson 2012). A financial ecosystem consists of interconnected technologies that are continually growing in order to increase product, managerial performance, and process performance (Clemons and Weber, 1998). Within this financial ecosystem, new technologies are constantly replacing old ones, and failing or failed technologies are made useless (Adomavicius et al. 2008). Now we are working on new technology and dismantling the old and impaired.

According to Gomber et al. (2017), the reorganisation of financial information flows has made online banking more widely used. Additionally, new financial information flow channels have been established thanks to networks, message protocols, and standards. With their mobile customer-centric approach, challenger banks have gained a large number of consumers. Application programming interfaces (APIs) enable the creation of personalised client experiences and the development of "banking as a platform." (Zachariadis and Ozcan, 2016).

Financial information flows are being reorganised as a result of the institutionalised paradigms being disrupted by the Fintech revolution. This is made possible by cutting-edge financial technical advancements that permit reintermediation, or the introduction of new

money markets (Sen and King 2003). India's growth surge may not yet be comparable to that of its international counterparts, but it is still strong and well-positioned, in large part because of a strong talent pipeline of easily accessible and reasonably priced tech workers (Vijai, 2019). The current article attempts to look at every Indian Fintech-related issue.

3. EVOLUTION OF FINTECH IN INDIA

When one looks at the fintech landscape, one can see a new marriage between technology and financial services. India has had several changes in the fintech revolution, beginning with a dramatic surge in Jan Dhan Yojna, which resulted in a sudden increase in bank accounts and Aadhar card linkage with banks, paving the path for fintech industries to enter India. Later, Covid dramatically expanded the market by having every second person own a mobile phone, and the availability of the internet has made it simple for consumers to access digital payments and purchase and sell financial items online. Every bank is now moving toward cashless and paperless operations. In the twenty-first century, the technology utilised in the back-end systems of well-established financial institutions came to be known as fintech.

Fintech 1.0 (1950 onwards)	<ul style="list-style-type: none"> • After independence, when the nation's economy began to soar and many citizens began using financial services, many British Raj banks in India were nationalised.
Fintech 2.0 (1980-2000)	<ul style="list-style-type: none"> • In the 1980s, banks began experimenting with online banking; by the 1990s, they had mastered it and increased its appeal. • The first online bank in India was ICICI Bank, which only offered basic services like access to account information and internal transactions. • In 1987, HSBC launched the first cash-withdrawing ATM in the nation in Mumbai. • The Central Bank of India issued the country's first credit card in 1980. • In October 1994, Stanford Federal Credit Union became the first organisation to allow its members access to financial services on the brand-new World Wide Web. • After the internet boom, payment mechanisms advanced with the 1998 creation of PayPal.
Fintech 3.0 (2000 onwards)	<ul style="list-style-type: none"> • The 2008 Global Financial Crisis paved the way for the fintech industry's explosive growth and widespread adoption.

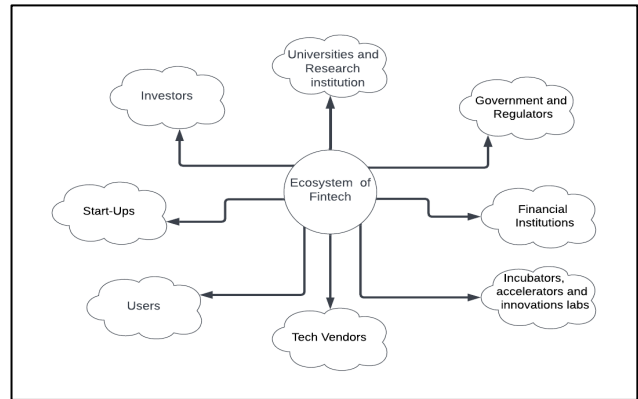
	<ul style="list-style-type: none"> • The launch of Apple Pay in 2014, Google Wallet in 2011 and Bitcoin v0.1 in 2009 served as the impetus for the growth of the fintech industry in India. • In 2016, the demonetization movement had a big influence on fintech. • Since conventional banks have trouble integrating their financial services with the SWIFT system, fintech startups have started to cooperate to share the market. • Due to the swift adoption of fintech, many Indian businesses, such as Paytm, Phonepe, Mobikwik, and Freecharge, were founded in a short period of time. • This guaranteed that smartphone use will increase and become the primary method by which people handle their finances in the future. • More than 2000 fintech businesses operate in India, and the number of fintech start-ups has increased over the past five years. • In order to appeal to today's tech-savvy customers, this compelled even traditional banks to reevaluate their strategies and embrace the introduction of more fintech into their products. • Open Banking and Banking as a Service (BaaS), which provide outside service providers access to their clients' financial information, have been adopted by traditional banks. • Neo banks and digital banks were aided in entering the Indian market via BaaS. • The financial industry has been totally revolutionised by fintech technologies, including crowdfunding platforms, mobile payments, robotic investment advisors, and online lenders.
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(Source: Arner, 2016)

Above table shows the periodic evolution of Fintech in India. FinTech, however, now covers a wide range of industries and sectors, including investment management, retail banking, education, and a lot more. In addition to the huge institutions in the BFSI sector, the rise of technology-driven start-ups in the industry has led to unheard-of market innovation (Kedia, 2022).

4. ECOSYSTEM OF FINTECH

All market participants can interact, participate, and share ideas across active communities and networks at a fintech hub. This is also where opportunities are found and turned into profitable ventures. Nowadays, since financial services are driven by technology, no market player can afford to work in isolation.



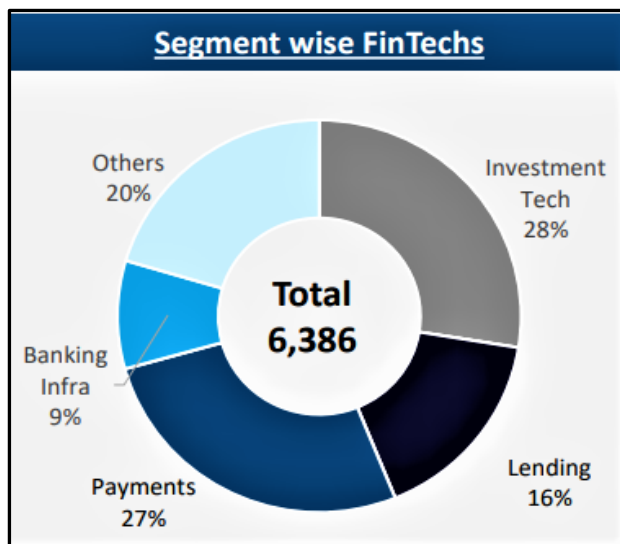
(Source: KPMG 2016)

By mentoring and aiding early-stage start-ups and generating a more qualified workforce, support institutions help the fintech sector. The government protects consumers by enacting suitable regulations and offering supportive incentives to enable fintech thrive. FinTech is being seen as a feasible investment by angels, venture capitalists, and private equity firms. Banks are actively assessing the best way to connect with fintech businesses and capitalise on their innovation. Incubators enable huge enterprises to become involved and assist emerging businesses in reaching their full potential. Fintech solutions are being integrated into the solution stacks of technology suppliers. Many people, from corporations to retail customers, are thinking about how they may use fintech to improve their services or customer experiences. Many creative start-ups are making many traditional banking services possible.

5. FINTECH INDUSTRY IN INDIA

With a total transaction value of US \$133.40 billion in 2022, digital payments are predicted to be the market's largest category in India, where the fintech industry is already well-established. In the Alternative Financing market, it is anticipated that average transaction value per user will reach US\$4,602.00 in 2022 (Statista, 2022). By the time the fintech industry has grown and developed in India.

In the financial industry, there are now 187 unicorns, 21 of which are in India. Acko, BharatPe, BillDesk, Chargebee, Paytm, Oxyzo, PhonePe, Pine Labs, Coin DCX, CoinswitchKuber, CRED, Slice, Razorpay, Cred Avenue, DIGIT, Groww, Policy Bazaar, Zerodha, Zeta, and Open are the names of these businesses. In 2022, Open (a fintech neo bank) and Oxyzo became the club's newest members (a fintech marketplace and SME loan platform).



(Source: ET, 2022)

The survey stated that out of the total 6,386 FinTechs, 28% are involved in investing technology, 27% in payments, 16% in lending, 9% in banking infrastructure, and 20% are involved in other industries (Times, 2022).

Various Fintech markets in India

India has a burgeoning Fintech business with platforms such as real-time time payments, investment advice, speedier loan sanction, transparent insurance advisory and distribution, relative lending, and a variety of other services that were formerly in the hands of people but are now being digitalised. This industry currently includes more typical financial services such as insurance, personal finance, and gold lending.

Pay Tech: Consumer-centric services offered in this area include prepaid card/Wallet, third-party application providers (TPAP), QR code payment, bill payment, point of sale (POS) and payment aggregator. Corporate cards, B2B payments, and invoice payments are examples of business-centric services. Fintech enters this area through the usage of services such as payment gateways, card networks, application programming interface (API)/White label solutions, and payment security. The biggest participants in this area include PhonePe, Paytm, Google Pay and MobiWik.

Lend Tech: Buy now pay later (BNPL), salary loans, personal loans, vehicle loans, gold loans, peer-to-peer lending and school loans are some of the consumer-focused services available in this market area. Business-focused services include fixed term financing, trade financing and corporate cards. Credit bureau collections management, lending as a service, alternative credit scoring, loan management system and loan origination system (LOS), and are among the fintech services used in this market area (LMS). Leading lending platforms for both individuals and businesses are emerging, including M-Swipe, Google Pay and Razor Pay (Briefing, 2022).

Digital Banking: The entire financial system is moved to a new platform by digital banking. Now that all paper work has been converted to digital format, the bank is

expanding its digitalization by adding new business divisions such retail neobanks, digital and subsidiaries, and SME (small and medium company) neobanks. Account aggregators, conversational platforms, API providers, aggregators, banks with open APIs, banking as a core, and service banking are all examples of digital banking. Some of the big companies with a focus on digital banking are Crazybee, YONO, and Kahatabook.

Insurtech: One of the industries that performed exceptionally well in the COVID scenario was insurance. The fintech jewellery worn by this service provider sector also comprises employee insurers, electronic insurers, comparison insurance platforms, and digital insurers. Offering services such as a sales platform, insurance infrastructure API, claims management, underwriting risk management insurance, policy admin system, and product configurator are all examples of how fintech may be used. In this industry, Policy Bazaar is a market leader.

WealthTech: Through discount brokers, robo advisors, research platforms, mutual fund investment platforms, research platforms, and alternative investment platforms, technology can be used in this market to deliver services linked to wealth and expense management. Portfolio management suites, white-label robo advisors, and CapTable management are examples of Fintech services that are suitable in this market. Leading companies in this market include Smallcase and Zerodha.

Finance Tech: Finance Fintech combines technology with finance-based services to enable investors and regular people to deal with financial services like quote to cash, taxation, and accounting, which are classified into levels for SMEs, micro-sized businesses, and enterprises.

Regulation Tech: Banks and other financial institutions are using financial technology more and more to support KYC, onboarding, fraud detection, anti-money laundering (AML), as well as solutions for banking compliance and risk management. In the financial services industry, the technology is also used to comply with regulatory standards like KYC and AML.

This is not a one-year plan to make India a thriving fintech market; rather, it is the culmination of years of hard effort to achieve this new level of success. The following are the main components for this recipe:

Jan Dhan Yojana: The Jan Dhan yojna scheme was immensely popular in 2014, at the start of the Modi regime, and over 450 million people joined in it and received financial rewards. When a bank account and an Aadhar card were coupled, it aided consumers and organisations in dealing with financial technology in a secure manner. Furthermore, the Jan Dhan Scheme planted the seed for financial technology in India.

Technology: As India develops, so does technology. The Indian market has seen an increase in mobile usage. With approximately 749 million internet users in 2020,

the country had the world's second-largest internet population. 744 million of these people accessed the internet through their mobile phones. Estimates indicate that this figure will exceed 1.5 billion by 2040. (Basuroy, 2022). This clearly shows how technology has pushed finance into new directions.

E-Rupi: This is a paperless and contactless kind of money that may be used for any transaction. When human health is at danger, this e-rupi has become a boom. This adds to the immediate benefit that has driven Fintech in India by bringing more frictionless and efficient cashless payment solutions. COVID-19 is a significant factor for increasing human awareness and compulsion for e-rupi, which leads to Fintech.

India Stack: India Stack is a collection of APIs that enables businesses, start-ups, and developers to utilise a special digital infrastructure to address the country's challenging issues with regard to providing services that don't require physical presence, paper, or money (Investindia, 2022). The acceleration of the Fintech industry's evolution has been made possible by the India Stack. One of the most significant digital initiatives ever undertaken, it aims to build a public digital infrastructure built on open APIs to support both public and private digital initiatives, and it has had a major influence on the development of India's digital infrastructure.

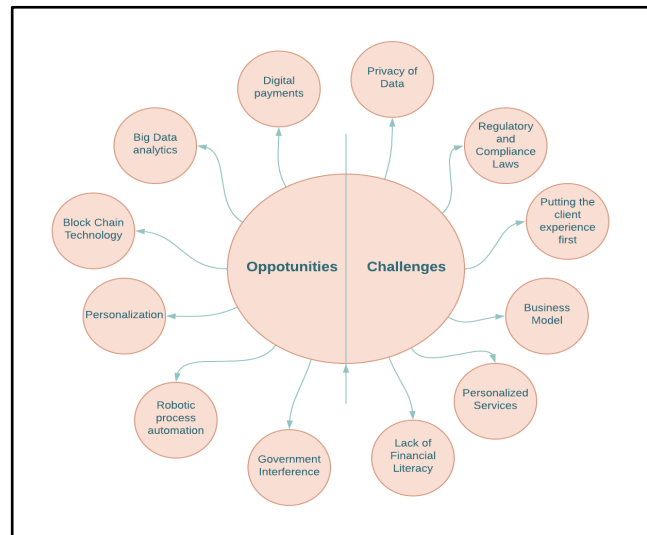
Financial Literacy: Some level of financial literacy is essential to utilise any financial app or conduct any financial transaction. People are growing more aware of fintech and its uses throughout time. Not only did it facilitate simple and secure transactions and investments, but it also aided victims of phishing, fraud, and other financial crimes. The government also took steps to increase financial awareness among residents, including as establishing a National Centre for Financial Education and executing the RBI's Centre for Financial Literacy project.

6. OPPORTUNITIES AND CHALLENGES

Fintech, like the coin, has two sides: opportunities and difficulties. Fintech in India is rapidly expanding due to advances in technology and people's capacity to manage it. A few obstacles also stand in its way. We started with the barter system and are now talking about Bitcoin and crypto currency. A lot is changing in the digital world. However, we are falling behind in the worldwide race. Fintech in India is rapidly expanding due to advances in technology and people's capacity to manage it. A few obstacles also stand in its way. We started with the barter system and are now talking about Bitcoin and crypto currency. A lot is changing in the digital world. However, we are falling behind in the worldwide race.

Digital payments: From using a mobile wallet to buy vegetables to using a credit card to pay for a hotel room. Digital payments are ubiquitous, and their presence makes life easier and faster. Cash payments require less storage space than digital payments. Approximately 71

billion digital payments were recorded across India in fiscal year 2022. (Published by Statista Research Department on July 21, 2022). This was a huge growth over the preceding three years. There is no longer any waiting period or a line in front of a bank. With a digital transaction, you can be anywhere in the world and get anything. Many Fintech companies have innovated the industry in recent years, which is truly a gift for everyone.



(Source: Author Compilation)

Big Data analytics: The time is now for digitization. Banks are currently going digital as we transition to a paperless society. As data and analytics have developed over the past ten years, organisations have come to rely more and more on them. Big data and analytics are being used to develop more individualised and focused user experiences. Companies employ data and analytics to be competitive because they enable better operations, more revenue, foresight of customer needs, individualised product offers, and demand forecasting. This should serve as a reminder to businesses that analytics are necessary if there is massive data. Their relationship is unbreakable. The banking industry is moving swiftly toward data-driven optimization; therefore, businesses must make careful, planned adjustments to these advancements. Using the consumer data that has been gathered to generate business results will be very instructive.

Block Chain Technology: A blockchain is a decentralised, unchangeable database that makes it easier to track assets and record transactions in a corporate network. Blockchain is a technology that has swept the corporate world off its feet. It is a list of dynamic records that employ encryption to link back to one another and include transactional data. The purpose of blockchain data is to serve as a secure record of transactions and to be impervious to change. Even for tech buffs, the nuances of the technology can be challenging to understand, but everyone can see how popular and common the technology is becoming. Blockchain technology can be applied to public and private ledgers

for record-keeping and inter-company transactions. Blockchain technology can be applied to public and private ledgers for record-keeping and inter-company transactions. The increased efficiency and visibility as a result can assist organisations in overcoming the difficulties brought on by the COVID-19 epidemic. Over 60% of Indian respondents to a Crypto Trends survey said they found using blockchain payments to be convenient (Published by Statista Research Department & 21, 2022). Less than 1% of those surveyed had a different opinion. Even though they were not officially recognised, the use of cryptocurrencies increased dramatically in India.

Personalization: One advantage of the modernity of Indian banks is the ability to conduct transactions quickly (Vijai, 2019). Customer contentment and satisfaction are brought about by this digital change, which eventually boosts sales. Financial institutions today are in competition not only with one another but also with the technologies they employ. Everyone aspires to excel others. Because of this, banking has taken on a new dimension: customization. Personalization and banking go hand in hand. Personalization in banking benefits companies every time. Personalization in the financial services industry refers to offering a useful service or product to a customer based on individual preferences and historical information. Financial institutions are now compelled to prioritise the necessities over the nice-to-haves due to the epidemic. A customised relationship encourages trust as well.

Robotic process automation: Robotic process automation is one of fintech's most important innovations because it makes it possible for individuals to gather and analyse information so they can benefit from it. People want to take advantage of the current scenario and want a thorough market study so that they can make an efficient investment. Businesses must get ready to offer new features with Robo advising services in order to take advantage of this exceptional opportunity. They offer banking sector services such customer support, account opening procedures, and other financial-related activities. The fact that RPA provides a top-notch user experience and cognitive wealth-management advice at an affordable price is unquestionably a contributing factor to the technology's rise.

Government Interference: The government also took the initiative and, for the upbringing of Fintech, launched many programmes. Digital financial companies have profited from start-up programmes of many countries. Additionally, the Reserve Bank of India offered a simple method for launching a FinTech start-up. Additionally, the government is offering start-up businesses financial assistance of up to \$1 crore. Customers began to accept the virtual currency for both private and business purposes.

7. CHALLENGES

Privacy of Data: Data privacy is a big problem. As per the nature of trade, Fintech has a lot of data like social security numbers, credit card numbers, investment information, income statements, and so on. Mobile usage and internet-based services that provide this kind of information are always at risk of transit. Protecting its information is critical if many frauds and phishing attempts are to be avoided. Due to technology improvements, it is now possible to remotely access essential IT technology, making it simpler to compare sophisticated data to sources of financial data. The absence of physical checks on crucial infrastructure and endpoint devices that transport firm data are further issues.

Regulatory and Compliance Laws: Establishing a Fintech company is not simple. It has become very challenging to obtain government permission for a variety of reasons, including fraud and data theft. In addition to being difficult to follow, these limitations also make it challenging for fintech companies to access the Indian market. Make compliance regulations function as a strict regulatory framework to prevent fraud. They too act as substantial obstacles for emerging financial businesses. Before they may operate, fintech start-ups must satisfy a broad list of standards.

Putting the client experience first: Finance is complicated for the average person to understand. A sound financial decision and investment involve a lot of work. As fintech advances into simpler platforms, it is now possible to easily incorporate it into people's lives and improve their quality of life. However, there is still more to be done in order to make the end user's experience simple. In terms of accessibility and ease, fintech's have led the way. Additionally, opening an account with any of the banks is now straightforward. There is more transparency because fees and charges are disclosed up front. Trading platforms like Robinhood have simplified the jargon of finance.

Business Model: Adapting to and expanding upon changing revenue and business models requires fintech's to reevaluate their resource allocation and income and expense strategies. Many organisations are employing cost-cutting measures including personnel reductions and compensation reductions to deal with the economic crisis. There will be numerous adjustments that must be done inside businesses if company booms. Changes in revenue sources and other business dependencies are included in this. Your business models will also change as a result. Fintech companies that specialise in contactless payments are reusing their resources to handle the increased transaction volumes.

Personalized Services: Businesses find it challenging to adapt and provide individualised services, as is well known. Businesses find it difficult to provide, despite the fact that it has always been a crucial and fundamental component of banking. Personalization in today's

environment refers to interacting with a user in the present on their preferred channel. You must respond to their particular needs with a solution that is customised. Customers mean this when they talk about personalised services. On any other basis, they are not prepared to agree to a settlement.

Lack of Financial Literacy: Adult financial literacy in India is 24% (FinLit Survey, 2015), with many people unaware of financial information and how to apply it. People make mistakes when it comes to making financial judgments, and as a result, they avoid making financial investments because they don't want to lose. People are being transformed by fintech, yet a lack of literacy is still keeping them from attaining their full potential.

Additionally, customers are open to using fintech as a financial wellness advisor. The extensive selection of settings can be overwhelming to some people. However, effective personalization guarantees that customers only see the options that are pertinent to them.

8. CONCLUSION

To sum up, developing technology, shifting cultural norms, and a supportive regulatory environment have all contributed to FinTech's exponential growth. Future technological advancements will likely drive the market's continued growth and alter the production, distribution, and use of financial goods and services over the next several years, according to the fintech industry.

FinTech has to do much more in its domain in India, India are still lagging in this race. Government, organization and associations are doing in this direction. Yes, it has challenges but gradually solutions to those problems are finding out with positive approach. This paper is a approach to give how Fintech flourish in India and how it will go in future. Indeed, problem is identified so do the solution can be make because it's a old saying if problem is identified then the problem is half solved.

9. SCOPE

This paper is an attempt to give a complete scenario of Fintech majorly focusing on India, its evolution, ecosystem, opportunities and challenges. This can be a big help to all academicians, research people and mangers to think what new can be added t make Fintech omnipotent and a frictionless effort to dealt with.

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