Fintech emergence - an opportunity or threat to banking

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Abstract: Fintech introduced contemporary payment, lending, investment, and fund exchange methods through digital currency, crowd funding, peer-to-peer (P2P) lending, and blockchain. This paper investigates the transformation of banking services and the financial industry caused by Fintech. The study aims to describe how Fintech products revolutionise banking and lending services. It sheds insight on the evolution of Fintech throughout the previous 170 years and its rate of adoption level across the world. This paper scrutinises the level of magnitude with which Fintech innovations entail non-intermediated deals and contribute to increasing the productivity of mortgage lending, including peer-to-peer lending and crowd funding. Quantitative research is undertaken by collecting and analysing data from secondary sources on the adoption level of Fintech. The study's outcome reveals that the Fintech industry garnered the attention of all sectors of the economy. Banks are partnering with Fintech start-ups to enable cost and time effective financial services and reduce financial exclusion.

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Ercan Özen received his BSc in Public Finance in 1994, MSc in Business-Accounting in 1997, and PhD in Business Finance in 2008 from the University of Afyon Kocatepe. Currently, he is an Associate Professor of Finance in the Department of Banking and Finance, Faculty of Applied Sciences, University of Uşak, Turkey. His current research interests include different aspects of finance. He has (co-)authored ten book chapters and more than 50 papers, more than 40 conferences participation, member in International Program Committee of three conferences and workshops. He is the Chair of International Applied Social Sciences Congress. He is an author and also a certificated accountant, member of Agean Finance Association and member of TEMA (Turkey Combating Soil Erosion, for Reforestation and the Protection of Natural Resources Foundation).

1   Introduction

With the introduction of IT innovations and change in customer behaviour, it becomes imperative to render various traditional banking services by complementing digital technology. This resulted into the transformation of financial industry referred by (Schallmo and Williams, 2018; Schmidt et al., 2017). Also, the expanding inclination towards technological advancements is considered to be the key for the quick adoption of Fintech. Fintech is used to describe the technological advancement in financial products through innovative tech-enabled business model via mobile-based financial software supporting easy and fast exchange of funds, big data analysis and algorithm extraction for risk scoring, securities trading and robo-advisor for portfolio management (Dorfleitner et al., 2017). Additionally, Fintech can be described as startups which are rendering digital financial services as a competitors to traditional banks, but also complementing their services by enabling innovative business models (Kaur, 2021).

Fintech at its core is to utilise technology to offer diversified and customise financial services to assist customer welfare. The quest of adoption of any advanced technology is based upon its cost, functionality and convenience. It has been approximately 1.5%–2%

cost of financial intermediation in US over last 13 decades appraised by Philippon (2015). Fintech development focused on the development of less expensive means to overcome financial needs and reducing the charges of financial services. Fintech enhanced the effectiveness of financing options, although quite risky but adding large value to investors inferred by Fuster et al. (2019).

The expected use of technology provides for:

1 scale down the cost of connecting lenders and borrowers

2 bringing economies of scale in handling big data.

3 achieving less expensive and safer exchange of transactions.

4 reducing financial intermediation cost.

At first instance, Fintech services entered the financial market with digital payment services, and the expansion of digital payment through UPI spiked due to the outbreak of COVID-19 indicated by Jakhiya et al. (2020) and Krivkovich et al. (2021). Secondly, it initiated with the lending purpose, which earlier was solely monopolised by financial intermediaries, especially banks, were thought to be a gateway for financial inclusion and considered part of an organised financial system. Conventional banks are intermediating between users and suppliers of funds based on traditional credit scoring methods supporting asset evaluation and past track records of financial transactions. However, these are facing competition with Fintech startups emerging in lending, payment services, and personal finance management. Fintech are providing alternative finance sources in the form of peer-to-peer (P2P) lending and crowdfunding documented by Morse (2015) and Ziegle and Shneor (2020). The worldwide P2P lending industry is expected to flourish around US \$705.81 billion by 2030 and is growing at CAGR of 26.7% from 2022 to 2030 (Precedence Research Report, 2022). It has been documented by Jagtiani and Lemieux (2018) showing that the underserved areas of society and areas with lesser branches of banks are penetrated by these digital platforms. In India leading P2P lending companies consisting of BharatPe, Faircent and CredMint providing finances to SMEs, and non-corporate borrowers (Monteiro, 2022). These are non-intermediated transactions which are technology backed customised financial products especially catering the financial needs of low income group people with no mortgage inferred by Thakor (2020). Financial footprints are assessed to evaluate the credit worthiness of fund seekers through a big-data analysis technique which proved to be highly validated. It arise a question on the future of banking, that emerging Fintech startups are threat for banking industry or an opportunity which indicates that how swiftly banks are adapting them and modifying their way of operations.

Apart from lending, the payment services and exchange of funds is affordable and faster through Fintechs like paytm, googlepay and phonepayare offered through banks by collaborating with Fintech startups, but they are competing with Bigtechs expanding their market share by offering the financial services to become financial incumbent (Bassens and Hendrikse, 2022; Singapurwoko, 2018). However, certain studies (Borgogno and Colangelo, 2020; Cliffe, 2022) claimed that extensive access to data and its alleged sharing personal data by Bigtechs for profitability are strengthen the position of the financial incumbent and causing dominant position which indicating the role of asymmetrical regulatory framework. Moving towards investment services and portfolio management various studies are indicating that Fintech innovations enable more

productivity over the traditional asset management techniques by implementing predictive trading algorithm, digital verification of IDs and algorithm based trading tools (Lemma, 2020). It prioritised the implementation of regulatory regime into two perspectives first for the recognition and supervision of digital assets as per legislation and second legislation for curbing illegal, abusive and manipulative practices followed by Bigtechs (Komova, 2022).

Fintech is gaining momentum by replacing intermediation process in exchange of funds, providing substitute of banks loan (through P2P lending), creating alternate of cash in the form of digital and cryptocurrency and assisting virtual contract through blockchain. The worldwide acceptance of Fintech products and its raising popularity point out following research question:-

Ques. 1   How digitalisation and advancement of information technology support the emergence of Fintech industry across past 170 years?

Ques. 2   How Fintech innovations modify the fund raising, credit and deposit operations?

Ques. 3   What is the rate of adoption of Fintech product throughout developed and developing nations?

Ques. 4   Will P2P lending replace the traditional banking financial intermediation process and theory?

Ques. 5   How Bigtechs are posing threat to Fintechs?

The outline of the paper contains the answers to above mentioned question in following sections. Section 2 addresses question 1, Section 3 will be pertaining to Fintech products interception in altering credit, deposit and payment services, Section 4 explain the facts and figures about the rate of adoption and Section 5 reports the experiment revealing the use of big data analysis supporting risk assessment for non-intermediated Fintech solution related to question 4. Section 6 discloses about the implications of Bigtechs in level playing field.

2   Digitalisation vs. FinTech

Information technology and banking advancement interplay throughout the evolution of financial industry. It basically divided into three phases, which described as Fintech 1.0 from 1837–1966. The existence of analogue banking technology have been traced a way back in 1837 when Congress Captain Samuel C. Reid (a champion of war of 1812) urged congress to construct a telegraph line between Neworeleans and Newyork. MacDougall (2015) found that Morse successful built up electro-magnetic telegraph capable for writing message on moving paper-strips, which can be readable at night and in all type of weather. In 1843, it was first time used when wire transfer initiated by Western Union to transfer money at a far distance place within the same day. That days Western Union was enjoying the monopoly. Telegraph not only brought commercial changes, but social changes also and dominated as newsgathering hub. A cable connection laid down to link New York and Baltimore in 1847 and telegraph lines rapidly expanded along the Atlantic coast and into the Southern states, allowing foreign currency brokers to keep track of prices and market information. For reshaping financial markets, the stock ticker invented

for quoting stock prices and interacting with market participants from a distant stock exchange in 1867. It was used to transfer international stock information and currency exchange between Rothschild and Behrens. Thus laid down the foundation of modern capital marketplace and change the geographical and psychological horizons of financial markets. It is evident that 1837–1866 was the first ever time period exemplifying the financial globalisation (Barbiroli, 2013). To establish credit mechanism, less involvement of hard cash and to promote hazzle-free transactions, personal cheques in the form of paper note were introduced with the assistance of routing checks in 1910. Diner's Club introduced credit card in 1950 used for multiple options and places at a very nominal rate of interest on monthly repayment instalment system was another form of financial autonomy.

Figure 1 Evolution stages of Fintech (see online version for colours)
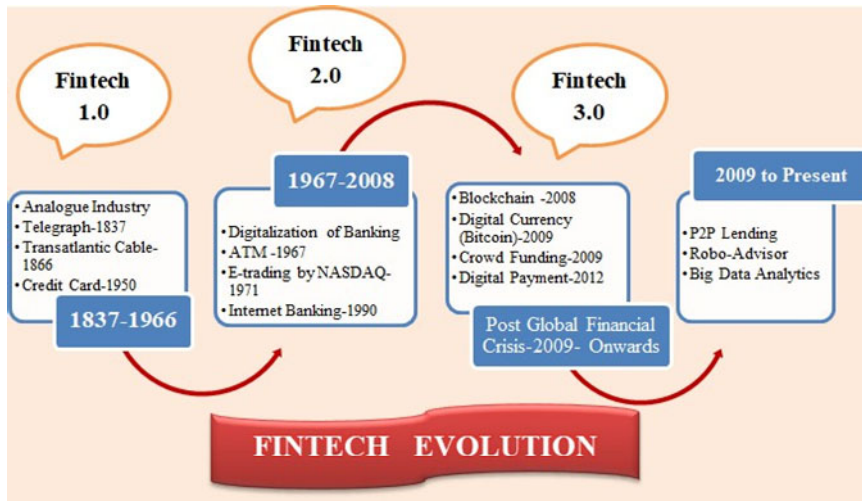
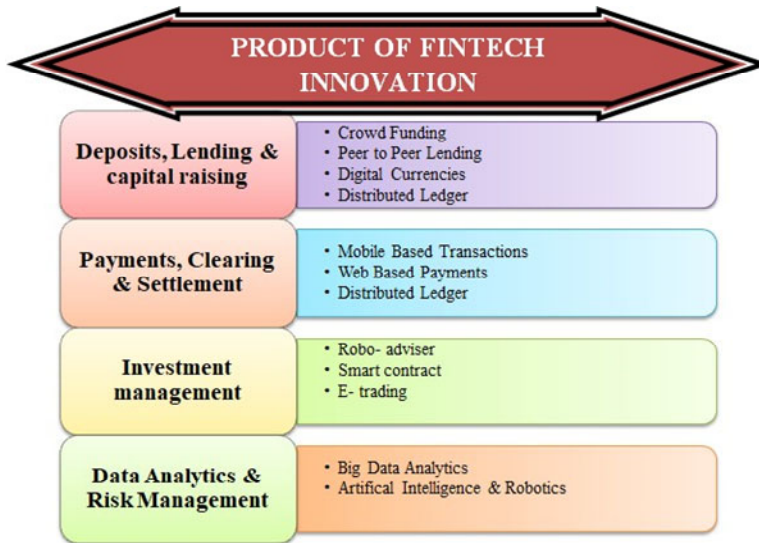

Source: Author's preparation

Subsequently digital technology brought milestone changes in financial landscape accessed from 1967–2008 as Fintech 2.0. Internal digitalisation was initially used to improve internal systems and procedures, including exchange of funds and management of securities and other types of investment through support processes and back-front office processes. The advent of automatic teller machine (ATM) prevents the visit of public to banks for checking the bank balance, withdrawing and depositing money. Barclays bank was the first to setup ATM in London in 1967 transformed the dealing of banks with customers through real-time computerised networking system. Security enhancement measures are also taken care through finger scanning and bibliometric of accountholder to promote its sustainable utilisation (Khalifa and Saadan, 2013). As documented by Gabor and Brooks (2016) shows the shifting of focus on institutional digital transformation, which hedged their bets on harmonising predefined practices, data processing and electronic transmission of funds through internet banking. The user-centric approach is paramount in the Fintech 3.0, which redefines financial services in hybrid customer channels and incentives for using applications such as mobile banking. Digital money and blockchain assisted smart contract came into picture in 2008 to safeguard the interest of general public after global financial crisis. Sharma and Kumar

(2022) disclose the blockchain adoption meant for recording transactions in distributed ledger and once validated by participants cannot be altered. New ways for raising funds discovered to substitute financial intermediation through crowdfunding and P2P lending. It connects borrowers to lenders without financial intermediaries and add value to both. Robo-advisor kick-start to the financial revolution in investment and portfolio management activities through deep learning and machine learning programs of Fintech innovations.

3   Fintech products changing the financial industry landscape

Fintech industry composed of startups founded to defeat the incumbent ecosystem of financial institutions. It brings out the innovative technology to provide financial services in cost-effective, effortlessly and time-saving manner.

Figure 2   Products of Fintech innovations (see online version for colours)

Source: Author's preparation

3.1   Crowdfunding

Crowdfunding is a unique way of raising money from the public. It is evolved from the concept of microfinance, it allows entrepreneurs to raise relatively small amount of funds in the form of charity or in return of some reward for their social, cultural, artistic, personal need projects (like medical, cancer, education expenses) and profit oriented projects from the network of internet user without the need of intermediaries. Founders of the projects connect with the funders through online on social media and crowdfunding websites. The startups have to express their ideas to the potential investors who are willing and competent to fund and have to wait for their consent. The mainstream media has given crowdfunding a lot of attention. While crowdfunding is still regarded a rare activity in terms of overall financing volume, it is increasing enormously across the world

and is recognised as something of a way to finance creative ideas that might go unfunded. The majority of startups, microenterprises, and people resist using complicated ways to raise financing. Obtaining funds through advances from financial institutions, seed capital and angel investment entails a number of steps. Proper evaluation of alternative sources of finance is undertaken and user friendly methods are adopted. Crowding funding are among the simplest and straight forward method.

3.2   *Models of crowdfunding*

There are various models of crowdfunding in terms of return provided to the funders given as follows:

- Patronage model is one in which funders are providing funds as donations without any motive of return on the investment. This model is also known as philanthropist model since the funders are more enthusiastic for promoting social goods and society welfare instead of return.

- Reward based crowdfunding is the method of funding in exchange of some incentive in the form of a product before its official launching or get a chance of meeting founders of the venture or idea.

- Lending based and also knowns as debt based crowdfunding where group of unrelated people invest into the venture by pooling their assets in as unsecured loan in exchange of some return.

- Equity based crowdfunding in which equity securities are offered to online investors in return of their investment.

Figure 3   Crowdfunding models (see online version for colours)
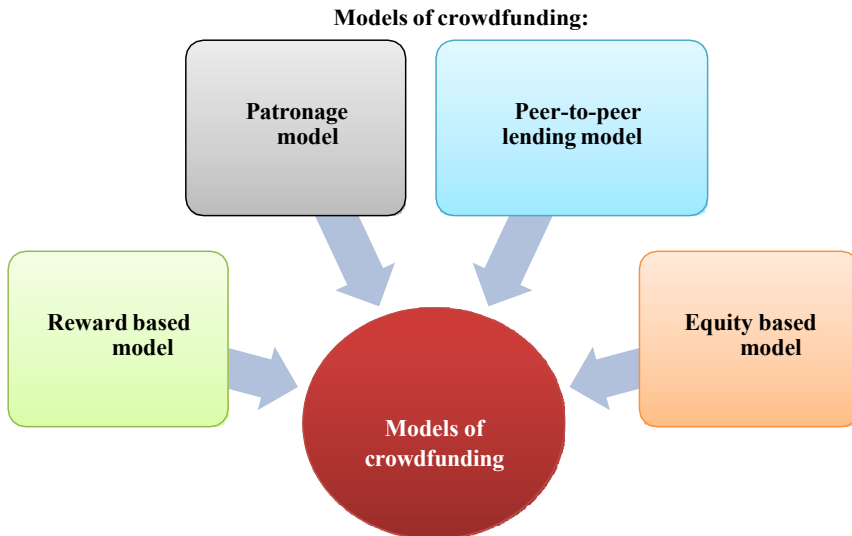
Source: Prepared by author

Patronage and reward based models are considered as community crowdfunding and P2P lending and equity based models are attracted financial return. Popular online crowdfunding platforms used in India are kickstarter, Wishberry, Indiegogo, FuelADream, Fundable, Ketto, Catapooolt, Millap and Crowdera. Global crowdfunding data reveals the transaction value of $8.53 bn for 2020 FY. However, the estimated value for 2022 is $11.11 bn. Major stake is gone to East Asian Nations with $7.08 bn with China counted for $7.05 bn, followed by North America amounting $830 million and US with $782 million.

Regulation: In India, SEBI regulates and register the founders and funders of the project through Alternative Investment Fund (AIF) regulatory framework and fix the threshold limit for crowdfunding. It segregated the investors into two types as 'Accredited investor' which are registered under companies act along with must be having atleast Rs 20 crore net worth and 'High Net worth Individuals' who are having atleast Rs 2 crore net worth. However, companies wish to raise fund cannot go beyond Rs 10 crore in one year and also have not been incorporated for more than four years with a turnover of less than 25 crore. Real Estate companies are prohibit from the use of this platform.

3.3   P2P lending

The rise of FinTechs has been witnessed during the last ten years, notably regarding the role of technology-based platforms in loan provision (Au and Sun, 2019). P2P lending has become highly relevant as it links individuals requiring loans with people willing to provide credit at a higher rate of return with different maturity levels (Shettar, 2019). Borrowers can get funds for various purposes, including debt consolidation, personal loans, business loans, vehicle loans, home loans, and emergency needs loans. P2P online lending platforms extend loans directly from lender to borrower in the capacity of virtual facilitator rather than conventional intermediation of financial institutions and allow twisting of the financial intermediation theory as referred in Bavoso (2022).

The structure of P2P lending can be classified into two categories, i.e., active P2P lending and passive lending. Active lending showed by Davis and Murphy (2016) is where an investor decides on their own to select an anonymous listed applicant after analysing all the financial information like annual income, detail of wealth owned by the borrower, and the objective of getting funds and makes a judgment on creditworthiness which further prevent information asymmetry exists in the traditional lending method. Furthermore, passive P2P lending suggests the investor furnish only the rate of return and maturity requirement, and the allocation of an ultimate borrower to an investor lies in the hands of P2P operators. Thus, it matches the criteria recommended by the investor. P2P operator matches them with a collection of loan applications that fit these requirements. The P2P network anonymously connects borrowers and lenders by employing complex computer algorithms. Some are considering using blockchain because of the security and transparency this technology offers. Lenders are informed about the general traits of various borrowers, not the unique traits of the user of funds they have funded. Passive model operators can be more at risk for brand damage from ventures that do not live up to expected outcomes from investors.

3.4   Payment services

Driven by the proliferation of the internet and mobile devices, the online shopping market is actively used among all age groups of individuals. It shoots up the growth of payment services due to its ease of using these Fintech services. Non-cash transaction volume is reported at $3 trillion in 2022, which is expected to grow to $10 trillion by 2026, which shows a three-fold rise in digital payment services by unified payment interface (UPI) in India. Currently, the digital merchant payment volume is 40% of all transactions, which is reported to grow to 65% in 2026. Various determinants suggested by different studies (Alshari and Lokhande, 2022; Huei et al., 2018; Kim et al., 2015) plays a crucial role in increasing intention to use mobile-based Fintech payment services. The literature identifies some factors indicating an individual's subjective and objective perceptions, such as perceived usefulness, perceived ease of use, personal mobility, convenience, effort expectancy, social influence, relative advantage and trust, which affect its intention and usage adoption. Multiple theories comprising the technological acceptance model (Kim et al., 2015; Ngo and Nguyen, 2022), Unified theory of acceptance and use of technology (Abbas et al., 2018; Ahmed et al., 2017; Dwivedi et al., 2019; Venkatesh et al., 2012), elaboration likelihood model (Kim et al., 2015), and technology, personal and environmental framework (Tran et al., 2018) supported the validation of the variables mentioned above in the adoption of mobile payment services. Fintech payment service providers can be classified into hardware makers, payment providers, financial institution, and operating system providers. Mobile payment infrastructure, compatibility, convenience, security, and simplicity are the primary requirement that enables mobile payment services; it also supports sustainable development as inferred by Hwang et al. (2021) by going cashless. However, certain pitfalls, including security challenges shown by Kang (n.d.) like authenticity, availability, privacy, integrity, and atomicity, must be handled effectively for full penetration.

3.5   Blockchain

Blockchain enables the decentralised smart contract execution at any time from any place through authorised network (Li et al., 2021). It involves recording all types of transactions or information into the block, which all parties once verify to contract is unalterable and non-removable. It facilitates corporates with an authentic, accurate, and fast way of maintaining information in a decentralised ledger called blockchain and payment of services worldwide without financial intermediaries. Big corporations are widely accepting it for faster execution of banking services, supply chain (Vadgama and Tasca, 2021; Xue et al., 2020), power energy trading (Höhne and Tiberius, 2020; Wang et al., 2021; Yang et al., 2019) and in healthcare sector (Ciampi et al., 2021; Haleem et al., 2021). Blockchain technology plays an imperative role in supporting cryptocurrency exchange. However, certain types of risks and challenges are admitted by studies (Horn et al., 2020) showing the ecological threat of using cryptocurrency as it involves more energy consumption. Even without centralised supervision, high anonymity in transactions is a matter of concern that may turn into criminal activities like evading tax and money laundering for promoting terrorism.

4   Data interpretation on adoption rate of Fintech

Global Alternative finance has changed the financial ecosystem of fundraiser and fund investors. It has changed the scenario worldwide as well as at country level. Different forms of crowdfunding measures like donation based, reward based, equity based, profit sharing, invoice trading, P2P lending The facts provided the following facts and figures.

Figure 4   Global Fintech adoption rate (see online version for colours)
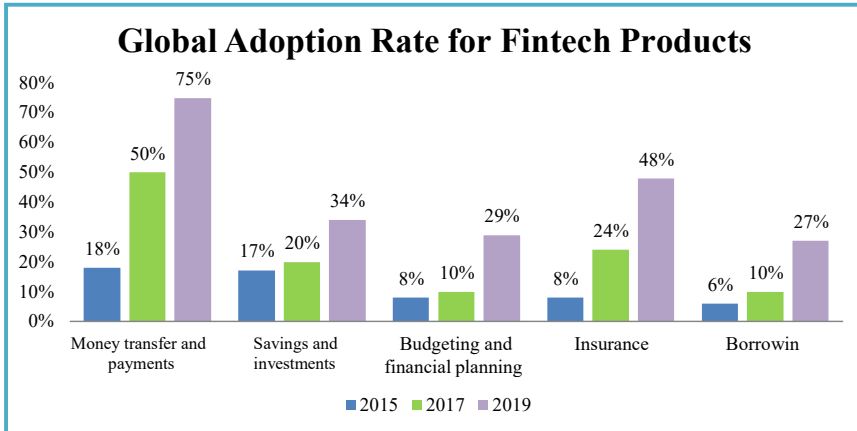
Source: Statista

4.1   Global adoption rate of various Fintech services

Figure 4 depicts the proportion of adoption rate of various Fintech products throughout from 2015 to 2019. It suggests the highest growth is witnessed in 2019 for using payment and fund transfer. The adoption rate is tremendously increased in such short span of time suggest about the convenient and fast services equipped with advanced financial technology. The selection of profitable portfolio through robo-advisor gained double growth rate in 2019 as compare to its 17% adoption rate in 2015. Then the usage of insurtech (insurance technology) skyrocketed the adoption rate in 2019 with six times more than the 2015 adoption rate of 8%. As far as borrowing is concerned, it goes up at 27% adoption rate as compare to 6% in 2015.

4.2   Country-based comparison of digital payment transaction volume

Country-wise comparison for the usage of Fintech-based payment services is disclosed in Figure 5. In 2020, only the highest online payment transaction of 25,478 million USD is initiated in India. It again is followed by China with 15,741 million USD online payment transactions. After this South Korea, Thailand, the UK comes. However, Mexico has only dealt up with 942 million transactions.

Figure 5 Countries ranking for digital payment transaction (see online version for colours)
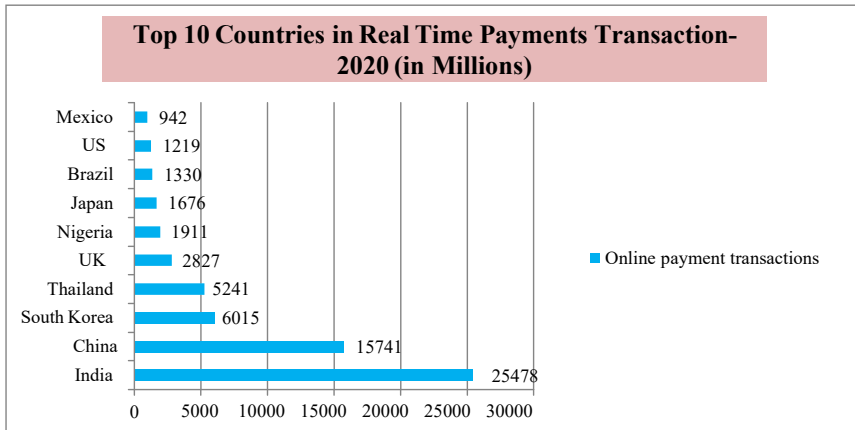

Source: Emarketer Survey

4.3 Transaction volume of Indian P2P lending industry

Figure 6 explains the volume of crowdfunding and P2P lending transactions from 2015 to 2018 in India. The beginning phase of 2015 signifies the quantum of transaction is 40 million USD for the year. However, the steep rise is witnessed in 2018 of 547 million USD as compare to 2015 which is approx. 1267% hike in just four years.

Figure 6 Volume of crowdfunding and P2P lending in India (see online version for colours)
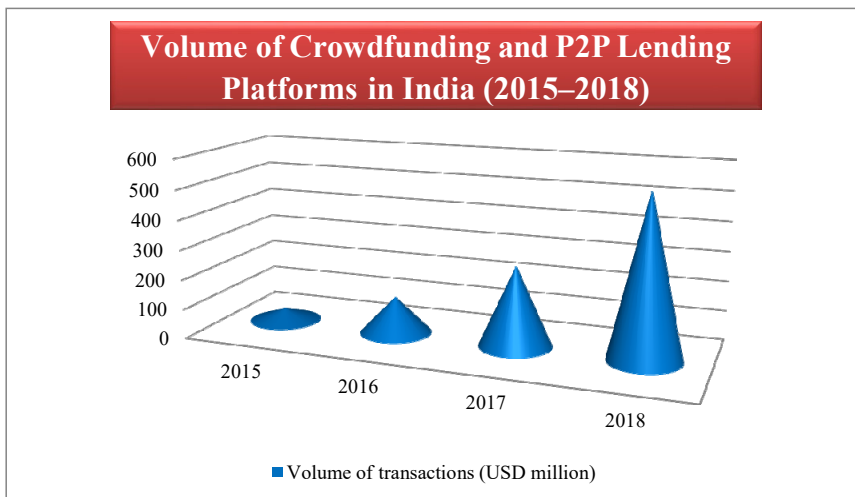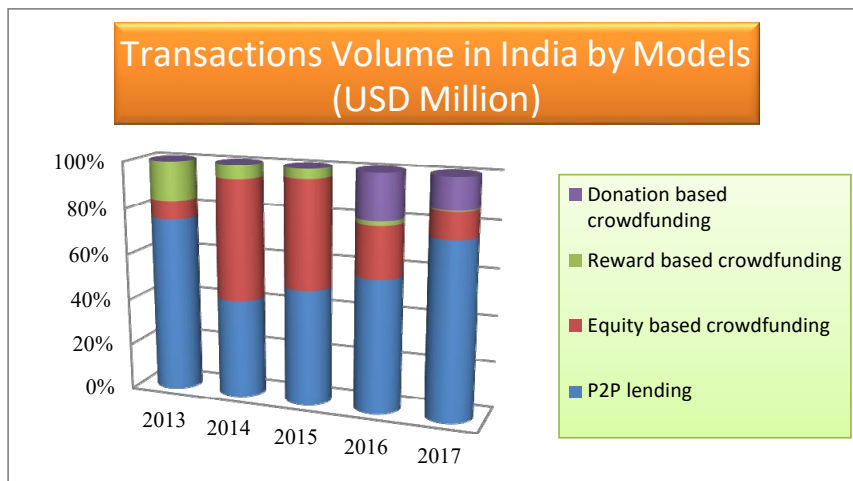

Source: -RBI

4.4 Transaction volume of different Fintech business model in India

The proportion of transactions volume of different models of crowdfunding models are disclosed in Figure 7. It depicts reward based crowdfunding is very minimal in Indian

market. As far as donation based crowdfunding is concerned it 15%–20% share. Equity based crowdfunding is growing over a period of time. Moreover, P2P lending has acquired approximately 70%–76% share as compared to other models from 2013 to 2017.

Figure 7   Transaction volume of different Fintech models in Indian market (see online version for colours)

Source: RBI

5   P2P lending replaces the financial intermediaries

To throw light on the role of P2p lending Fintech platform in credit risk assessment and financial intermediation process the description is provided as follows.

5.1   Concept of P2P lending and credit risk assessment measures used

The P2P lending platform is now-a-days expanding its horizon and the rate of adoption is also amendable and attention seeking. Somewhere it is replacing the traditional banking financial intermediation function. To provide advances, the banking institutes utilise the conventional system of verifying the borrowers and ensure the safe lending transaction. Banks check past credit record and security's value for offering loans and depositors whose money is advanced are not anywhere in the picture of traditional lending process which is solely initiated between banks and borrowers.P2P online lending platform illustrates the technology-enabled convergence of many financial roles, such as financial services provider, credit broker and market operator (Davis and Murphy, 2016). It is adjoining individual lenders and borrowers without any financial intermediaries' involvement and without any mortgage through an online platform. So it is imperative to know how the faith and trust warranted towards the platform among its users.

In this regards, determination of credit risk become essential which denotes the suspicion and uncertainty present in financing and credit scoring predict the tendency of default by borrower in advance. In P2P lending model, this function of credit scoring is determined through machine learning via digital footprint from borrower's perspective.

However, for loan profitability lender's evaluation, experience, risk, maturity score is calculated taking the lender's perspective (Havrylchyk et al., n.d.).

Prediction of default loan is assessed through novel big data mining methods which include random forest, adaptive boosting and extreme gradient boosting. random forest method is having highest accuracy among all these three with the precision rate of 98% for classifying default (Ma et al., 2020). These novel big data mining techniques ensure more accuracy than old techniques by differentiating between normal loan and default loan.

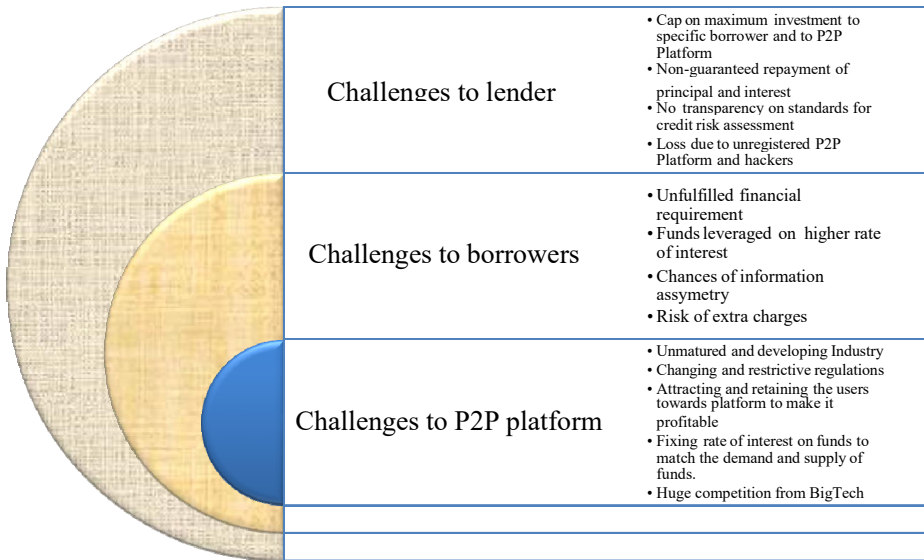## 5.2 Role of P2P lending in financial intermediation process

This investigation addresses two related questions. It begins with a discussion of the conceptual reinterpretation of financial intermediation. It provides comprehension of the function of P2P platforms and if they have replaced the traditional role of banks as intermediaries. Second, it investigates the dangers associated with P2P lending channels. This second inquiry emphasises policies and legislative problems that have been neglected or minimised in contemporary discussions.

The critical element of lending is that every financial intermediary performs is risk-maturity function and brokerage function. Brokerage function requires financial institutions to follow the three pillars of financial intermediation theory: risk sharing, asymmetric information, and transaction cost. Information asymmetry (Allen and Santomero, 1997) resulted into two problems which includes adverse selection (hidden information) and moral hazards (hidden action) which mandates the matching of pre and post contract information and obligations of borrower. It ensures the effective asset allocation, proper screening of loan application and determining the quality of loan. Uncertainty and lesser familiarity to lender about the borrower can be result into adverse selection. The behaviour of borrower after getting loan reflects the usage of loan amount in high risky projects can be indicated as moral hazards. It happens when borrower put the lender's money at risk to generate more return as compare to the use of its own money. As the cost of generating funds reduced, it also reduces the cost of risk taking or risk bearing. The solution to these problems can be reduced by more governance, changing incentives to non-defaulting borrowers (Havrylchyk and Verdier, 2018).

P2P lending platforms perform the brokerage function of financial intermediaries by matching lenders' supply and borrowers' demand of funding, according to the risk and the maturity of their needs. The main problem of this new form of financial intermediation is solving adverse selection problems by relying on new scoring models. Although banks have better access to information because of their access to the credit history and current account data on borrowers, P2P lending platforms can experiment with new sources of data and machine learning. Unlike banks, platforms do not transform maturity and risks. However, they have built a range of different strategies to reduce risks: secondary markets, diversification via the automatic investing as well as provision funds. P2P lending platforms have created a new business model that is not vulnerable to self-fulfilling panics.

5.3   Risk associated with P2P lending

Figure 8   Risk associated with P2P lending (see online version for colours)

Challenges to lender	• Cap on maximum investment to specific borrower and to P2P Platform • Non-guaranteed repayment of principal and interest • No transparency on standards for credit risk assessment • Loss due to unregistered P2P Platform and hackers
Challenges to borrowers	• Unfulfilled financial requirement • Funds leveraged on higher rate of interest • Chances of information assymetry • Risk of extra charges
Challenges to P2P platform	• Unmatured and developing Industry • Changing and restrictive regulations • Attracting and retaining the users towards platform to make it profitable • Fixing rate of interest on funds to match the demand and supply of funds. • Huge competition from BigTech

5.4   Regulatory regime

P2P lending has grown into a thriving multi-billion dollar industry that connects lenders and demanders of the funds on a cutting-edge technological platform to meet the two parties' unique financial needs. In China, the P2P sector faced difficulties and risked investors losing their investment. However, the P2P lender's failure prompted the regulators to intervene and enact new regulations to safeguard investors. These are intended to ensure that investors know what they are getting into and require transparent disclosure of information regarding the pros and cons of P2P lending.

It is typical for industries pioneering new ground and upending established industries to encounter such hardships. Frequently they gain knowledge from them and improve the services they provide to clients. Due to their lower fees, simple application procedures, and quick loan approvals, P2P borrowing and lending opportunities will most likely continue to be in high demand. These advantages will probably continue to support industry expansion and encourage ongoing innovation.

In this regards, the RBI has provided a cap of Rs. 5,000,000 to lenders a one time for all P2P lending platform. On the investment of Rs. 1,000,000 lender is required to submit the certificate of minimum 50 lakh net-worth along with the declaration of risk understanding associated with P2P lending for non-guaranteed repayment of principal and interest.

6   How do Bigtechs posing risk to Fintech

Bigtechs which are extending the digital financial services with influential market space and having extensive access to huge data which provokes them to indulged in abusive practices of sharing data profitability with incumbent banks for securing dominant position and non-sharing of data with Fintech (start-ups), thus hindering the level playing field between Fintechs and Bigtechs. It create hurdle in the entry of Fintech start-ups and creating a culture of monopoly and manipulative practices.

7   Conclusions

The advancement of the IT sector fosters the rise of specialised business models in many market niches, having increased product customisations to accommodate the ever-changing consumers' needs and preferences. The paper explores the nexus between Fintech and banking. Advancements of Fintech in payment services, credit services (including P2P lending), blockchain-abetted smart agreements, the insurance sector, and big data analysis contributed to broadening and fastening the pace of the financial industry. It also facilitates customised financial products through which we assess their adoption level and growing trends in developed and developing nations. The study's findings suggest that the highest growth was witnessed in 2019 for using payment and fund transfers. The adoption rate is tremendously increased in such a short period, suggesting convenient and fast services equipped with advanced financial technology. The selection of a profitable portfolio through Robo-advisor gained double the growth rate in 2019 compared to its 17% adoption rate in 2015. Then the insurance usage (insurance technology) skyrocketed the adoption rate in 2019 by six times more than the 2015 adoption rate of 8%. As far as borrowing is concerned, it goes up to a 27% adoption rate compared to 6% in 2015.

Conversely, the country-wise comparison shows that in 2020 only the highest online payment transaction of 25,478 million USD was initiated in India. It again is followed by China with 15,741 million USD in online payment transactions. After this, South Korea, Thailand, the UK comes. However, Mexico has only dealt with 942 million transactions.

Additionally, the volume of crowdfunding and P2P lending transactions depicted a steep rise of 547 million USD in 2018 compared to 40 million USD in 2015, which is approx. – a 1267% hike in just four years.

However, the role of P2P lending and crowdfunding in the financial intermediation process suggests that P2P lending platforms perform the brokerage function of financial intermediaries by matching lenders' supply and borrowers' demand for funding according to the risk and the maturity of their needs. The main problem of this new form of financial intermediation is solving adverse selection problems by relying on new scoring models. It focuses on how it helps in credit and risk assessment through algorithms and big data analysis to reduce the chances of default and make it a big success for low-income borrowers and lenders.

Moreover, the development of the global P2P lending industry is being constrained by a need for more public knowledge of P2P lending. Additionally, the global demand for peer-to-peer finance is being fuelled by the expansion of small and medium-sized firms. So it becomes imperative to figure out the pitfalls and challenges faced by borrowers and lenders, and corrective regulation is to be made. A solution to the abovementioned issue

can be provided through some strategic alliance between insurance companies and P2P lending platforms so that borrowers' default arises due to the loss of a job, any physical disability, and accidental death cannot be borne by lenders. To summarise, Fintech has the potential to resolve the issue of financial exclusion in a far better, cheaper and faster way.

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