

## Open banking: a revolution in the Tech-Fin industry

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**Abstract:** ‘Open banking’ is a cutting-edge technology that has transformed the banking sector, with a promise of information security. It acts as a conduit between fintech and traditional banks. Fintechs are financial-technology companies, leveraging ‘digital’ to enhance their business. Although a relatively old concept, fintech firms have picked up popularity in the recent past. However, fintech firms are now facing intense competition from tech firms. This study demonstrates how the collaboration of traditional banks and fintech firms will lower the impact caused by techfin giants in financial markets. Open banking has the facility to revolutionise the method we tend to move, manage and build additional cash. Open banking may be a new, secure method for customers and little businesses to share information, permit new and existing firms to supply super-fast payment ways and innovative banking merchandise.

**Keywords:** open banking; payment processing; secure technology; Fintech; Techfin; strong customer authentication; SCA; transaction data; PSD2; data sharing; authoritative countries; jurisdictions; SME lending; collaboration; credit score; personal data.

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**Biographical notes:** Jyoti Gogia is a management student at Department of Management Studies, Netaji Subhas University of technology. Her research interests include fintech, strategy, consumer behaviour, digital marketing, etc. Alongside, she is studying French literature from Alliance Française de Delhi.

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## 1 Introduction

Open banking may be the sole means for fintech(s) to partner with conventional banks (because tech giants already control much of the financial market). Banks will see profits if they collaborate with fintech in this digital world, hence retaining their computer-savvy customer base. However, if banks refuse this partnership, they may need to purchase customers' data from tech giants.

Open banking is a secure technology that enables a platform of application programming interfaces (APIs) for traditional banks and authorised third parties to have an effective communication for the benefit of consumers. Here, communication stands for data transaction and other vital information of the consumer after taking legal consent from consumers and banks. Open banking is a secure technology that enables a platform of APIs for traditional banks and authorised third parties to have an effective communication for the benefit of consumers. Here, communication stands for data and other vital parties could be fintech firms or techfin (depending on consumer or bank). Fintech firms are financial institutions that employ technology mediums for consumer goods. Technology assists consumers in getting rid of tormenting traditional banking procedures. The technology assists not only traditional banking but also fintech firms. However, in this research paper, the key focus is mainly on techfin companies' domination over fintech firms.

Jack Ma rightly says there are two significant opportunities in the future financial industry: online banking, where all the financial institutions go online; the other is internet finance, which is purely led by outsiders.

Techfin companies are the technology giants with full power over technology, and they are trying to enter the financial world by dominating financial markets. Amazon, Google, and Apple have already dominated much of the payment sector. Amazon is trying to establish itself as a leader in payment systems.

This research paper addresses the problems traditional banks and fintech companies could suffer in the future. Techfin has become a new threat to the fintech and traditional banking sector as well. The research paper aims to get some unplugged insights into techfin companies. In the future, techfin companies could replace fintech firms as third party members, making fintech companies vanish within a few years. Techfin companies have been the most significant threats for fintech and the traditional banking sector. Traditional banks may need to purchase customers' transition data from techfin in future. Nevertheless, techfin companies' interest lies in the personal data of consumers rather than customers' money. We have proposed a detailed analysis of techfin companies, fintech firms, and Open Banking roles in today's era, based on the analysis we have predicted a future model that could reveal hidden insights of fintech, techfin, and traditional banking future.

It also analyses how the techfin industry disrupts the fintech industry and how the collaboration between fintech and traditional banks in open banking will change the techfin and traditional banking sector's future.

In this analysis paper, we will explore the expansion of open banking in the UK and technology implementation needed to attain the required results. We tend to square measure planning to dig additional into the challenges long-faced with open banking.

When the UK conducted an investigation into the supply of retail banking services to personal current account customers and small and medium-sized enterprises (SMEs),

there was a need to improve competition in retail banking and financial services (Schueffel, 2017).

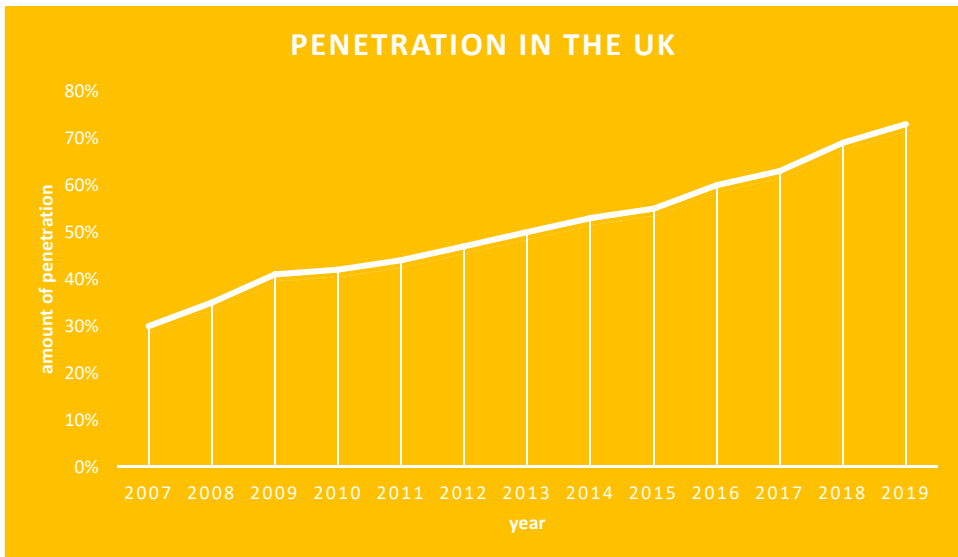
It was then, open-banking introduced as one of the changes.

A small range of giant banks has dominated the UK's banking sector before the 2008 money crisis, fitting a bank within the UK was an expensive and lengthy method. In fact, within the starting, it was thus tough to try and do that once underground bank secured a license in 2010, it was the primary to try and do therefore in an exceedingly hundred years. Once the money crisis, it was seen as essential to open up the UK's banking sector to form additional diversity and win a broader part of the market.

The below statistic shows the penetration of open banking in the UK from 2007 to 2019.

We can see that the growth of open banking has been tremendous (Norrestad, 2020).

**Figure 1** Penetration of open banking in the UK from 2007 to 2019 (see online version for colours)



## 2 Models, methods and framework applied

### a Problem statement:

- One of the main challenges faced by open banking is security.
- Another downside is that the lack of education and awareness around open banking's capabilities has created shoppers less likely to consent to their information is shared, limiting the banks and FinTech's ability to initiate.

### b Impact of the problem

- There is a constant fear to consumers that their data may get misused.
- Also, it is said that 92% of the consumers had never heard of open banking.

### c Root cause

- A majority of companies that are championing open banking are small FinTech companies, not tech giants like Apple and Google, and lack homogeneity of technical standards. Specific security requirements combined with complex internal technology systems may make the process susceptible to corruption and fraudulent activity. Creating complex chains for data access also makes it harder to prove who was at fault following a theft.

#### d Desired outcome

Firms need to focus more on providing the desired level of security to their consumers. It will help build and maintain a secure ecosystem, which is vital for open banking growth.

There are a unit five critical ways in which open banking helps improve the whole banking system's security:

- 1 Collaboration and standardisation implies that stakeholders area unit substantial along: securing open banking is mutualist for the complete digital banking scheme. Accessible Apis and VPNs drive collaboration and communication between corporations – even between competitors to make a secure scheme for the top client.
- 2 Transparency and encoding place customers in management: giving shoppers more significant control of their information permits them to grasp its use. The whole purpose of open banking is to provide customers power over their knowledge, which implies they're unengaged to opt-out of those platforms, which ought to incentivise banks to take care of sturdy information protection controls.
- 3 Potential for AI to enhance protection: Open banking will facilitate AI systems do their job higher, by broadening the pool of knowledge they need to figure with and providing a customer's read across establishments. Observance typically administrated by building anonymous profiles' of users that facilitate AI systems flag something uncommon.
- 4 Authorisation and authentication: once terms and conditions area unit thousands of words long, merely clicking 'agree' is normal apply. However, as individuals become aware, they will have given apps access to many of their data than they realise, shoppers could also be a lot of careful once agreeing to share their financial information. Multifactor authentication is crucial in adding another layer of security and trust. Technology, like biometry, connects digital security to the physical world comforting shoppers that they're on top of things.
- 5 From resilient to proactive cybersecurity: higher access to much information suggests a much better insight, which implies that banks will a lot of effectively take the fight against hostile parties, instead of sitting passively and waiting to be a target of cyber-attacks.

### 2.1 Open banking journey from PSD2

It all started in 2016 when authorities instructed traditional banks that with the customers' permission, banks subject to PSD2 in Europe are being forced to make payment processing, payment initiation and other non-confidential data available to third party

apps in a regulated and secure way via a set of standard APIs (New Openbanking World, 2020). Open banking is a secure technology, i.e., the APIs allow consumers and SMEs to safely share their transaction and other data with an authorised third party after taking legal consent from consumer and bank. Open banking has added significant value in consumers' life; many banks support the open banking concept. However, few banks are reluctant to open banking globally. Now, let us talk about the value 'open banking' is adding in the lives of laymen and SMEs.

- 1 It has helped consumers to get a credit card after monitoring users' transaction data.
- 2 12 million (as of 2019) the UK citizens have been under the trauma of debt repayment plans, using a smart repayment plan that could solve their problem – thanks to open banking.<sup>1</sup>
- 3 Five million (as of 2019) people in the UK will benefit from savings thanks to open banking.
- 4 All the paperwork of selling or purchasing could be automated – thanks to open banking.
- 5 By open banking, the mortgages and loan-related issues will be resolved in no time.
- 6 A third party can get transaction data and other vital data from consumers; it would help lenders provide loans and consumers could get reasonable loan offers. There are thousands of benefits open banking could generate in the upcoming future. So far, The UK has been experiencing a few benefits of open banking.
- 7 Open banking can enable a whole range of tools and services by opening up secure access to current account data, making small businesses more efficient, profitable, and successful. Many SMEs are exchanging data with their accounting service provider.

Users could get a lot of benefits of open banking after its complete establishment globally. Complete establishment refers to omitting all kinds of securities issues, compelling the few banks that are reluctant to open banking concepts, and getting rid of all kinds of difficulties. The security protocols that have to be followed by third-party apps, consumers, and banks include no one's private information being shared at any cost or without their explicit consent; users restrained from sharing their username and password third party apps other than the banks they trust. Only authorised parties are allowed to access the data through strong customer authentication (SCA).

The UK has become the first country in the world to have a single standard where a consumer could instruct a third party to access their transaction data via API and execute single immediate payments on the back of it. A survey was conducted in 2018 by Accenture at 100 large banks. The survey revealed that 65% of the respondents see Open Banking as more of an opportunity than a threat. 52% see this as an opportunity to separate themselves from the traditional banking world, and 99% were interested in investing in open banking 2020. However, because of COVID-19, they might have regretted not investing in open banking earlier. Nevertheless, they still do have the opportunity.

### 2.1.1 *Aspects of the open banking skeleton*

- 1 Traditional banking has been adopting open banking culture.
- 2 Open banking works differently in different nations.
- 3 Many nationalities have not yet applied the open banking model.
- 4 Data privacy has given the utmost priority.

### 2.1.2 *Challenges*

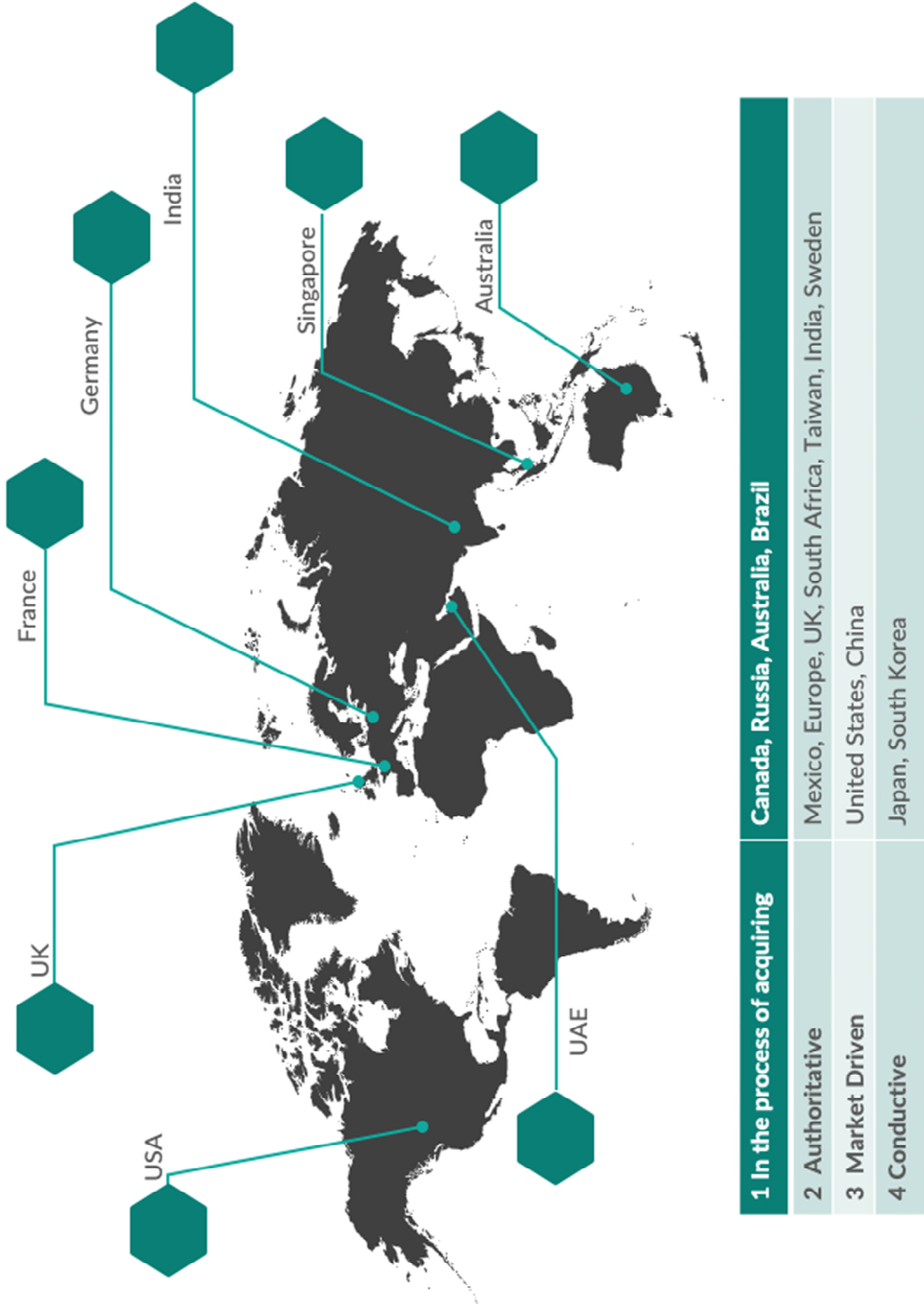
- 1 Business model adaption challenge.
- 2 The most crucial challenge would be cybersecurity and data protection.
- 3 Banks may face honour code violation risks by third party members.
- 4 In the process of acquiring –1.

### 2.1.3 *Legal and regulatory development in open banking*

- 1 National authorities, who follow the open banking framework, have their range of actions to control open banking.
- 2 Some authorities have very compelling restrictions on third parties, such as banks can solely share data with third parties after taking legal consent from customers. The registration of the third parties would be under superior authority.
- 3 Other national authorities have given some guidelines that should be strictly followed by banks and third parties.
- 4 Remaining nations follow a market-driven approach.
  - In the process of acquiring, the countries that are enabling and adopting open banking world.
  - Authoritative 2 – Requires data sharing.
  - Market-driven 3 – No need to take any consent for data sharing.
  - Conducive 4 – Stimulate data sharing.
  - They all face the same benefits and challenges for whichever approach they choose.

Many jurisdictions have been adopting some form of open banking frameworks. Frameworks of open banking may vary in different nations and regions, but they all share the same risks and challenges. Open banking has come up with much potential, which could change the business models of banks completely. It could change the services that banks provide. Nevertheless, banks need to be concerned about risks, including the privacy data and other forms of data obtained from customers after taking legal consent from the customer.

**Figure 2** Depicts the development of open banking, followed by rules and regulations in various countries (see online version for colours)



## 2.2 *Insights – market segmentation and industry insight of open banking and fintech (financial technology)*

Now, let us get some insights of fintech. Two hundred scientific research papers that were citing the term fintech were analysed, and a new study came up with the definition of fintech. Fintech is a financial services provider industry which applies technology solutions to enhance their financial services. With the immense success of fintech paradigm, it is possible to automate several tedious traditional processes such as an investment, insurance, risk management, banking services, trade finance SME Lending, and trading.

Traditional banks and authorities are interested in fintech firms as third-party apps in open banking; therefore, this is a crystal-clear opportunity for the fintech industry. Although the fintech industry is well-established in the payment system, they need to dominate as much market as possible, since the techfin industry finds this financial industry intriguing. Nevertheless, we will talk more about this in the later sections. For now, let us discuss the relation between fintech, banks, and consumers. Ant Financial (China), Adeline (Netherland), Quadian (China), Xero (New Zealand), SoFi (the USA), Lufax (China), Avant (the USA), ZhongAn (China), Klarna (Sweden) and Oscar (the USA) are the top ten fintech companies. We can see China and the USA leading the fintech world (Bajpai, 2020). China has created its own Silicon Valley. China's start-up-copying era has ended, and now China is focusing more on innovation and development. They are promoting entrepreneurship by providing various kinds of incentives. Entrepreneurs in China do not face funding problems as the Chinese Government and venture capitalists are incubating them. E are not discussing the start-up and business culture of China. However, developing nations should need to learn from China. Most of us know about Paypal, a well-known giant in the fintech sector. However, Paypal does not manage a place in the top ten list. One could claim that Paypal Wis not considered as a fintech company. Investopedia, a well-known investment and financial education provider website, does not mention Paypal as a fintech firm anywhere. Wikipedia, too, has only one reference of fintech if someone scans the entire Wikipedia page. Therefore, it is not in the top ten list.

The tech companies which provide financial services is known as fintech. Therefore, Paypal is also a fintech company. How are fintech companies being employed as a third-party app in open banking? Which fintech firms (giant ones or newbies) are suitable for open banking? What are the possible risks and benefits for banks and fintech in the future? We will discuss answers to the above questions in a detailed manner.

### 2.2.1 *The path of fintech companies being employed as a third-party app in open banking a genuine opportunity*

Fintech firms' ability to apply innovative technology to enhance their financial services appeals to the attention of government officials and financial regulators around the globe. Third-party apps in open banking are often considered as fintech firms. After taking legal consent from government authorities (only in the UK, Europe, Africa, South America and India, few economies from all of these are not yet open to the open banking framework) fintech can act as a third-party member in the open banking framework. API is a virtual platform that connects different banks with third-party apps or fintech in a secure way. So, for example, let us say XYZ bank has opted for the open



banking framework and XYZ bank has given consent to the money manager as a third-party member (after taking the legal consent from respective authorities) and the money manager (fintech) should have also taken consent from authorities. When a user signs up as a money manager, after taking consent from the consumer, the money manager app will redirect its page to XYZ bank's login portal. After login into the online bank portal bank, it will ask for permission to share your non-confidential data. If you allow, then your data will be shared with respective fintech or third-party apps. You can do this for every single bank where you have an account except the banks which have not yet adopted the open banking model. Now, you are done; enjoy your benefits. Nations like India adopted different types of banking systems. The unified payment system was introduced in India, which mainly enabled techfin to transfer money from bank to bank. We will dig deeper into this in the later sections. Stay tuned!

### *2.2.2 Regulatory, policy and legal aspect: the fintech firms (giant ones or newbies) are suitable for open banking*

The answer is, it depends on the authorities (authoritative countries) and banks, and most specifically, it depends on the consumer. The consumer has the right to choose whichever third-party apps provided is an official app. The first role comes with authorities, jurisdictions and permissions to set up a fintech company. Then, banks have a choice to select whichever app they want. Further, there is a role of consumer who chooses a third-party app (provided that the banks possess a connection with that fintech company). Privacy is the most concerning part of the open banking framework. Therefore, one has to choose third party members wisely.

Well-established fintech companies are well-equipped. They have money, employees, sound business strategy, good connections, brand value, etc. Now, the vital thing is their security protocol. They can hire anyone in the world with a good security protocol knowledge and background. Therefore, big fintech companies could be the best choice according to banks, officials and consumer want. However, fintech companies are not solely made for open banking purpose; they also offer other critical financial services. This could be one kind of con for big tech companies. If we talk about small companies, they might be having security issues. However, they can devote their entire time to open banking, which would boost open banking usage. They can improve their security protocols. All they want is support from banks, consumers, and officials. In the end, it is banks, consumers, and officials' decision of what to implement. One may wonder if there will be a rivalry between big companies themselves to get a third-party position. I think big fintech companies show interest in open banking. However, they do not bother much about it as they have other things to do. On the contrary, small fintech firms could be rival to each other as they do not have many things to do. They would try to find opportunities to start with, and eventually, they compete with each other (provided that there are multiple fintech start-ups already present in the market).

### *2.2.3 The possible risks and benefits for banks and fintech in the future*

I have explained much of the benefits that both organisations could get; however, an essential benefit for banks is moving with technology's pace. In future, artificial intelligence would play a very crucial role in shaping the financial sector. Therefore, if banks adopt a quick pace with technology as early as possible, they will surely conquer

the AI world. Newbie fintech firms can start with open banking, and they can earn a bit of revenue out of open banking in their early incubation stage. Giant fintech will be benefited more because they would try to dominate the open banking market share as much as possible. In short, open banking has created a new opportunity for fintech firms to survive from techfin (stay tuned!). There are still thousands of risks both organisations could face. The most crucial risk is again, security. In the future, the most precious thing for you would be your personal information, so bear in mind, do not share your information with anyone unless entirely legal and authorised. In the end, data protection, security, and related data information would be the primary, precious, and crucial aspects for banks and fintech.

#### *2.2.4 The myth: open banking and techfin (technological financing)*

‘Techfin’, as the name suggests, refers to technology companies that provide financial products and services to consumers with their tech solutions. They are mainly interested in technical aspects. However, they found a very intriguing opportunity to get financial data from consumers. They are interested in consumers’ financial data rather than their money. If we take a look into the list of techfin companies then top tech giants such as Apple, Google, Amazon, Facebook, and BAT top the list. We will try to forecast who will be the ultimate winner in the future model prediction section. So, let’s explore some history of techfin. In 2005, Alipay was launched, then in 2007, Amazon launched its Amazon pay, followed by Google in 2011 and so on. They act as third-party members, they just have a platform to do transactions and of course, they accumulate your data and that is what they want – only customers’ data. Techfins are becoming rivals to each other – they try whatever they can to dominate the mobile payment market.

#### *2.2.5 The relation between open banking and techfins*

As we know, open banking is a framework that groups together traditional banks, consumer, and third-party apps. Third parties, as we discussed, could be fintech or any other registered app. Techfin companies are exploring financial sectors already and then, why would they ignore new opportunity which is coming towards them? They would grab it and try to dominate the market of open banking. As we know, tech fins or tech giants are giant companies. They can do anything; literally, even a big fintech company is nothing in front of these tech giants. However, I would like to point out that tech fins could replace fintech companies as a third-party member in open banking framework.

#### *2.2.6 The big questions id that would techfin become a threat to banks and fintech*

Traditional banking has been suffering for the past few years since they are being forced to go digital. Fintechs were already in the market, offering financial services and products, then the era of open banking began. Fintechs and traditional banks found a way to benefit both of them by incorporation in the long run. Moreover, there comes the entry of fintech, which could be the biggest threat for banks and fintech. According to an article published by Forbes, the fintech company carries advantages such as innovation mindset, pace in adjusting, consumer-centric viewpoint and of course, a framework built for digital. In contrast, banks carry advantages such as scale, robust brand identity, and

entrenched trust. Fintechs carry disadvantages such as less profit whereas banks carry disadvantage in legacy systems (Marous, 2018). The challenge for both was to have a platform where they can explore their ideas, communicate effectively and provide a better service to consumers and the platform they have currently is open banking (maybe more new platforms coming up in the future). Techfins anyhow would become a challenge to both even after their robust collaboration. These tech fins or tech giants already figured out how to decrease operational cost, and they have managed to increase efficiency in their business strategies. According to Bain (2020), tech fins possess all significant quantities and qualities of success – considerable customer support, digital expertise, technological solutions, and the amount of freedom to extend their corporate brand into banking (JPM, 2020). The major concerning thing is that many of these giant tech companies generate a level of trust that the banks have generated so far within a short period. People are tired of the old tedious traditional banking process and want to get rid of it. Of course, they prefer digital way over this traditional way of banking. However, traditional banks still possess more trust than tech fins, and by incorporating fintech, they are transforming their way of serving customers. However, in the future, those banks who cannot bear with technology's pace would take no time to vanish.

### **3 Market/finance/end user research and analysis**

- *Size of the market:* Open banking might improve the UK GDP by £1 billion annually.<sup>2</sup>
- *Potential revenue:* The open banking sector might quadruple its value to get £7. Two billion of revenue by 2022.<sup>3</sup>
- *International adoption:* the UK leads the means in adoption; however, international interest in open banking is getting down to integrate many of the world's alternative leading economies.<sup>4</sup>
- *Some facts and statistics:*
  - 94% of FinTech square measure considering, however, open banking will enhance their current service.<sup>5</sup>
  - 71% of monetary establishments feel free banking may be a positive initiative, and seventy-seven agree that it is a radical amendment for financial services.<sup>6</sup>
  - 84% of financial services firms square measure investment in accessible banking product and services.<sup>7</sup>
  - 22% of SMEs would get hold of a dashboard of all business financial accounts and loans.<sup>8</sup>
  - 77% of banks in Europe arrange to invest in open banking initiatives for their business customers.<sup>9</sup>
  - 72% of the UK adult population can bank via a phone app by 2023.<sup>10</sup>

Eight out of ten monetary corporations square measure adopting or about to adopt open banking or interested in doing this.<sup>11</sup>

86% of economic corporations recognise the worth of the open knowledge banking provides.<sup>11</sup>

### 3.1 The future of open banking future is in techfin or fintech

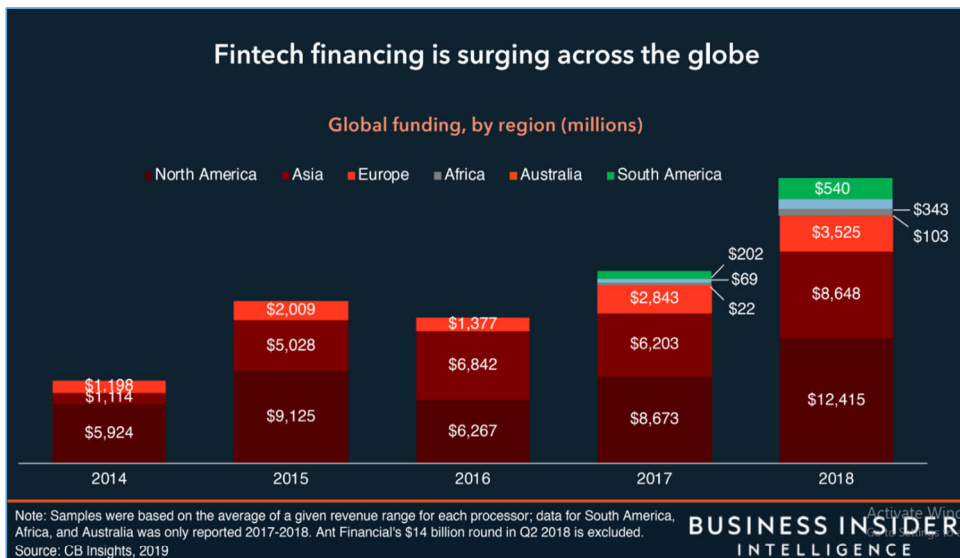
As of now, we have discussed many aspects of open banking. We are ready to discuss the crux of this research paper:

#### 3.1.1 What will be the future banking looks like

To implement an open banking framework, do banks and authorities solicit techfin or fintech?

As we have discussed in the techfin section, particularly in the second question’s answer, I mentioned how techfin could rule the financial world. However, many other aspects of banks and fintech make them better than tech fins; therefore, coming to a natural conclusion would not be fair.

**Figure 3** Fintech financing across the globe (see online version for colours)

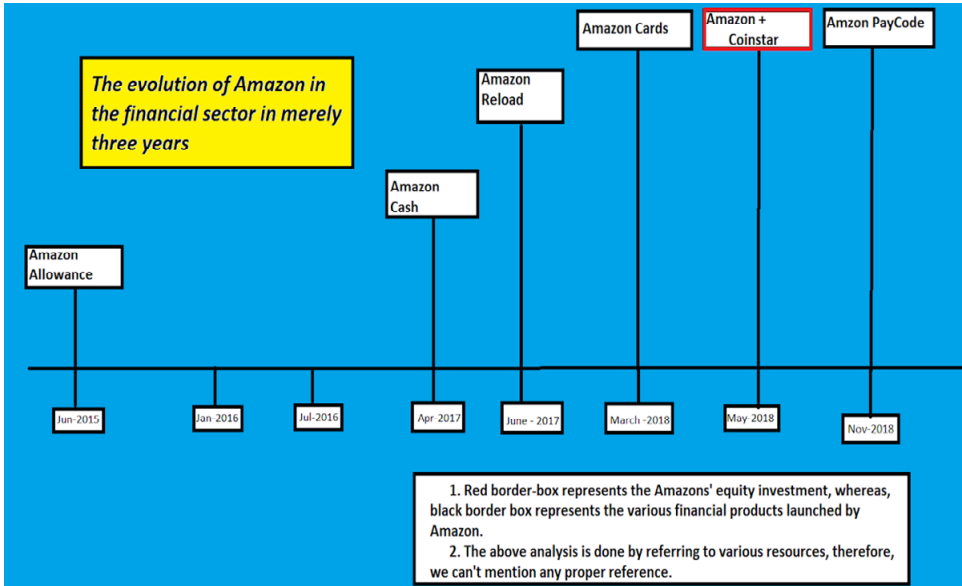


Note: Figure 3 is meant for only analysis; please do not draw any other irrelevant information out of Figure 3.

Before discussing further, I would like to put forward an analysis of the surging of fintech globally. We have shown the data that gives the overview of fintech firms surging up since 2015. This data has been obtained from *Business Insider* (relevant references cited at the bottom). This report shows how fintech firms have been surging up since the dawn of open banking. Based on the analysis, we will forecast the model. The model will elaborate on possible future scenarios in the later sections, based on the analysis. The

fintech sector has been surging since the era of open banking began. Now let us analyse Figure 1 (Insider Intelligence, 2020).

**Figure 4** Amazon success story in the finance tech (see online version for colours)



We can see the sudden surge of the fintech financing sector since 2015. You might have noticed that the years 2015 and 2016 were very crucial. We can see the rapid surge of fintech finance in Europe, Africa, Australia, and South America. The reason could be open banking because open banking came into the picture in the same year, i.e., from 2015. The surge in North American countries is not proportional as compared to other countries. However, NA has the largest fintech sector as compared to other countries (except China). Asia made much progress since 2014, and a lot means acute progress. Among all fintech regions, Asia is growing in share. A well-established fintech attracts investors' attention. However, Asia Japan, India, South Korea, and Singapore do not possess compulsory open banking regimes as we have discussed in the open banking section.

Let us analyse a few things in detail. Let us analyse one of the reputed tech giants: Amazon (techfin). Amazon introduced itself in the market of payment, lending services, insurance, etc., within a short time.

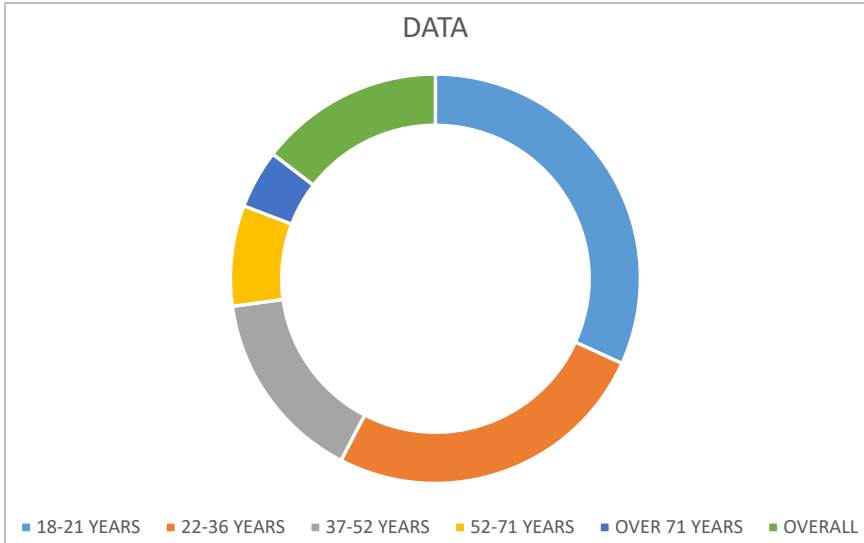
Amazon introduced various lending types such as consumer lending, SME lending, amazon credit builder, cards and much more.

Amazon is indirectly challenging fintech and banks. It may buy fintech companies to enhance its financial market. It is also leading among all techfin companies in terms of financial service providers. Alibaba has a vast empire too. However, Alibaba mainly operates in China.

#### 4 Data analysis and results

- We should focus more on the millennial, as younger consumers find open banking most valuable. Big banks have underserved the Millennial they have not committed their loyalties to one bank or another. It gives banks that stand to focus their attention on the millennial to build high-value long-term relationships, ensuring future mutual success.

**Figure 5** Participation of different age group in open banking (see online version for colours)



Millennial managing personal finances online but more likely to want the human touch, too.

- Over half of the 25–34-year-olds (53%) are comfortable using an online service to manage their finances.
- 54% of the 25–34-year-olds like the idea of a service that considers their more comprehensive financial information.
- Organisations should specialise in developing a hybrid service, augmenting technology’s undisputed advantages empathetically and understanding that folks bring.

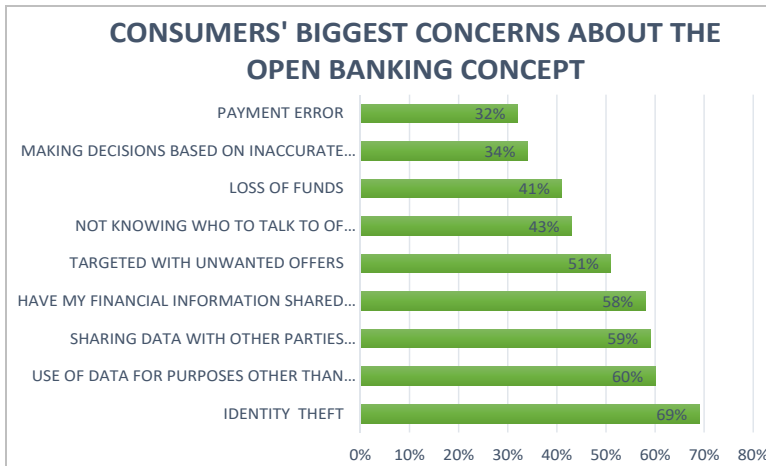
#### *Key findings*<sup>12</sup>

- As we can see from the higher than information, the consumers’ primary concern is that the fraud and use of their data for alternative functions while not their consent, i.e., primarily corporations have to be compelled to provide security to their purchasers.

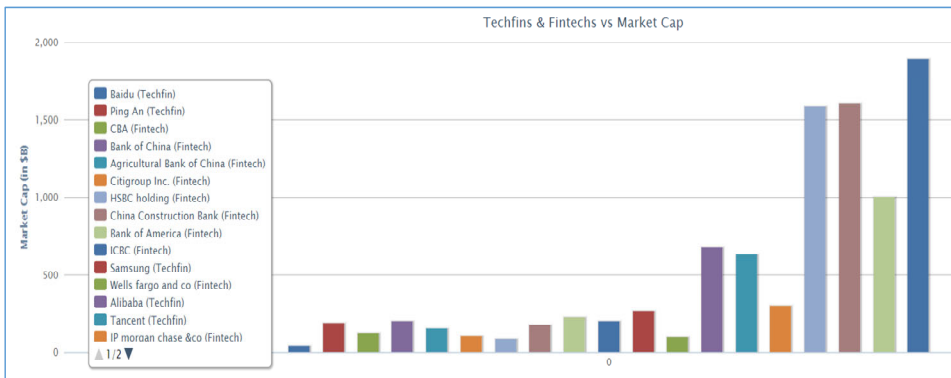
Now, it is time to look at the market cap of top techfin and fintech companies. According to the figure given below, we will try to find some insights. We will analyse the market

cap of top fintech and techfin companies and these elite companies' performance in 2020 compared to 2017.

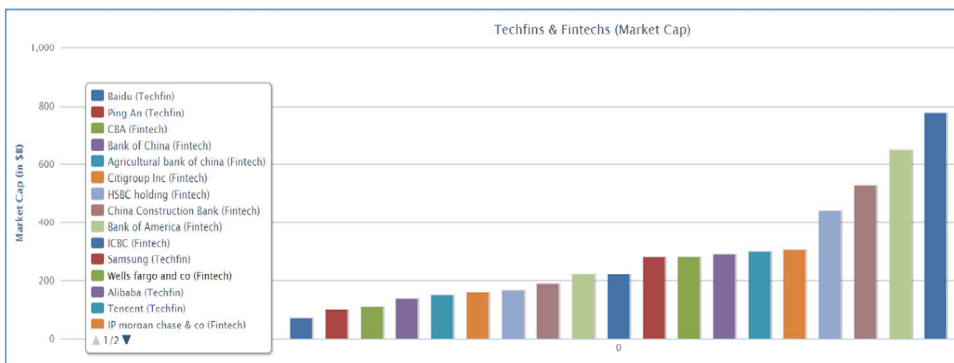
**Figure 6** Consumer's biggest Concern About OpenBanking Concept



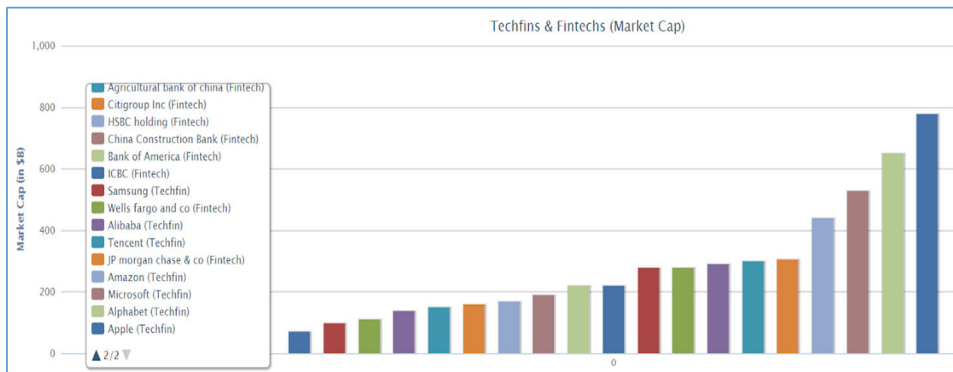
**Figure 7** Performance in 2017 (see online version for colours)



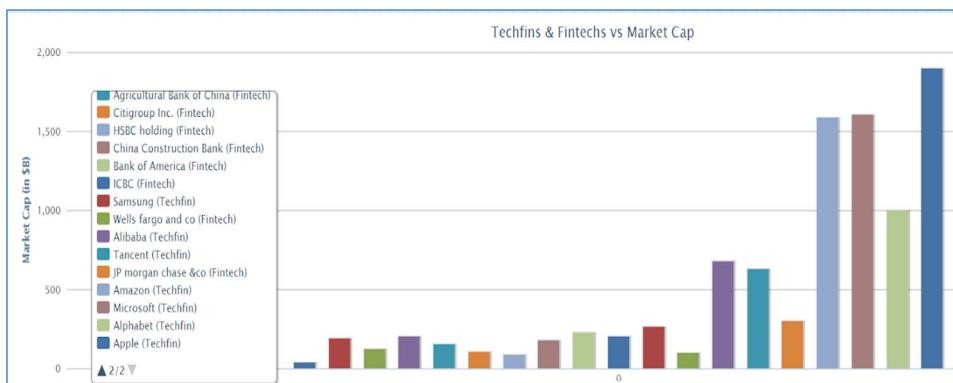
**Figure 8** Performance in 2020 (see online version for colours)



**Figure 9** Performance in 2017 (see online version for colours)



**Figure 10** Performance in 2020 (see online version for colours)



- Now, let us discuss the above data analysis one by one – Figure 7 and Figure 9 represent graph between market cap vs. techfin and fintech (data valid up to 2017), and Figure 8 and Figure 10 represent graph between market cap vs. techfin and fintech (data valid up to August 2020). Therefore, we will compare various fintech and techfin companies; then we will come to the final result.
- For instance, let us look into top fintech company performance vs. top techfin company performance in 2017 and 2020.
- Fintech – JP Morgan Chase & Co. VS Techfin – Apple as both companies have been ranked as a leader in their domain.
- The market cap of JP Morgan Chase & Co in 2017 was \$379B, and as of 2020 it is \$302, and if you analyse the last few years’ market cap, you would find that the market cap of JP Morgan is fluctuating rapidly. It can be easily seen that the market cap value has decreased by \$77B in merely three years. Now, coming to the top techfin company, tech giant Apple. The market cap of Apple in 2017 was \$884B whereas in 2020 Apple is about to touch the \$2T (2 trillion dollar) mark. The pace is astounding. Not just one, look at other techfins such as Amazon, Google. They have already crossed their 1 trillion-dollar mark. Fintechs’ growth is not comparable. I am



not claiming that fintech could vanish with time. However, they will have new and robust rivalries in the coming future.

- New, independent fintech firms and old, well-established independent fintech firms could be having rivalries not directly from techfin, but from the new fintech firms that the techfin companies could establish. Let us take the second example of the other largest fintech firm in the world that is Wells Fargo. The market cap value is again very fluctuating. In 2017, the market cap of Wells Fargo was \$305B, and as of August 2020, the market cap is just \$107B. Market Cap value has decreased by \$205B. This is an alarming situation for fintech to wake up and look into their business model. They still do have a way to survive a harsh future. But how? They should collaborate with traditional banks because both organisations could face severe disruptions in the future. Traditional banks may need to purchase data from techfins. As highlighted earlier, techfins are not interested in money but are interested in individuals' personal interests, behaviours, purchase habits and other data. Therefore, banks, if they do not collaborate with fintech, could need to purchase users' data from techfin.

## 5 Future models and predictions

Let us analyse the market cap fluctuation of last three years of Wells Fargo and JP Morgan Chase. In the end, we will produce some future predictions.

- Image 26.
- Figure 11 and Figure 12 represent market cap fluctuation of JP Morgan Chase and WFC since 2006. We can see the fluctuations. JP Morgan has been doing a bit better than WFC. The current market cap of WFC is the same as it was in 2006. Those who are planning to invest for the long term may suffer a lot in the coming future. Nevertheless, as I said earlier, fintech can still collaborate with traditional banks; people still trust banks more than they do techfin.
- Without collaboration with traditional banks, fintech would suffer a lot shorter, and banks also need fintech to make their future secure. They may need to purchase data from techfin companies. Banks would prefer fintech over techfin. However, few banks are little reluctant, and those banks who fail to keep pace with technology would have a hard time to survive. Open banking frameworks prefer fintech over techfin. In the end, it is all in the hands of banks and fintech to figure out how to shape their future and make techfin stay out of their business. Techfin already has many things to explore and do business with.
- The reader of this research paper might have gotten the idea about future predictions, after analysing the vital data such as market cap, growth of fintech and techfin companies.

- Future prediction when fintech and banks collaborate:

Open banking is not only serving customers but also serving fintech and banks. When banks start with the open banking framework, they will need to collaborate with techfin. However, banks can also collaborate with techfins if they wish. Therefore, it is the responsibility of fintech to approach banks and incorporate open banking framework. However, banks would prefer fintech only because techfin companies would not give much attention to open banking. This is because they are majoring in technology; therefore, techfin would be focusing more on technology. In contrast, fintech companies are majoring in financial technology; therefore, fintech will focus more on the open banking framework as they do not have other things to bother with. Hence, banks would likely choose fintech over techfin.

- Future prediction when banks do not collaborate with fintech:

Techfin would not let fintech win in a financial war. Techfins would slowly dominate all financial sector markets, and banks may need to purchase data from techfin companies. As a result, some banks and fintech may need to shut their offices. There is a possibility that techfins may be starting their banks in the future, as techfin is gaining trust and loyalty from customers. Techfins have enough cash in the bank; however, this is just a prediction. People still trust banks more than they do technology. Banks got time enough times to spread their influence.

**Figure 11** Market cap fluctuation of JP Morgan Chase since 2006 (see online version for colours)



**Figure 12** Market cap fluctuation of WFC (Wells Fargo & Co) since 2006 (see online version for colours)



Source: WFC (2020)

## 6 Summary and conclusions

### 6.1 Value add

- The idea of open banking predicated on principles that may cause massive turmoil within the banking sector by introducing additional choices for shoppers and competition for corporations.
- They conjointly facilitate patrons’ advantages, like accounting comparison services, personal finance management, and simple access to credit services. It’ll empower customers to regulate their finances, build higher choices, and manage multiple accounts through one application.

#### 6.1.1 Benefits of open banking to customers

##### 6.1.1.1 Client reaps the advantage of choice

Most banks supply similar services that area unit restricted in scope. Additional significantly, most banks are not excellent monetary advisors. With open banking, customers will reap the advantage of selection as they need multiple choices or service suppliers to decide on a from. Therefore, it is not forced to use any specific code that’s bundled together with your account.

### 6.1.1.2 *Additional bespoke and relevant product offerings*

Most banking apps have a similar set of service choices. With the entry of newer service suppliers, customisation and repair personalisation are introduced, that massively advantages customers.

## 6.1.2 *Advantages of open banking to fintech*

### 6.1.2.1 *Simple manner for banks to increase their services*

Most banks have kicked off the fintech journey. Open banking provides them with the chance to expand their offerings and includes additional services underneath their umbrella.

### 6.1.2.2 *Meet client requirements*

Today's customer's area unit is forever searching for additional. With open banking, monetary establishments can have such a lot different to supply to their customers and keep them happy.

Life without technology is quite difficult in this digital world. After the web revolution, the speed of development has skyrocketed. The internet became a significant aspect of our lives. It will take a couple of minutes to check the internet for anything. We do not have to go anywhere to search for information. The internet has made our lives uncomplicated, comfortable and pleasant. Citizens have become hesitant in these internet times to go to banks and stand in line there. They look for easy ways to get their work done.

With this, online banking came into being. People still trust banks to store their money more than anything else, though banks cannot serve customers more than fintech does. Fintech can keep track of our expenditure, loan repayment plans, credit score, and transaction data. Therefore, a way to connect fintech and banks online should be available.

The open banking framework can accomplish this. Fintech firm can serve the customer by keeping track of the different bank accounts of the user. The APIs have a role to play here. It connects different bank accounts of the same client to fintech without sharing confidential data. Although many top traditional banks have accepted the open banking framework, few banks are reluctant.

Many countries have been using open banking, some of them adapted different open banking strategy, and few are still on the road to application. Techfin industries found this a very excellent opportunity to get into the financial sector. Several technology companies have launched their financial products already, and they are successful too. Furthermore, according to the hypothesis and research we have presented so far, techfin would want to conquer the financial industry, and techfin companies are becoming more competitive. Techfin companies are interested in the customer's data rather than their money. In the future, data security will be our utmost priority.

- Techfin industry is so huge, and fintech industry cannot cope with techfin, so there is only one way to lower the techfin industry's entrance rate into the financial sector, which is fintech partnership with a bank. Collaboration benefits fintech and benefits banks because if banks are unable to keep up with the technological world, they will not thrive. Banks may require to purchase data from techfin industry in the future

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## Notes

- 1 AR, CN, US. In the US, the US Consumer Financial Protection Bureau issued consumer protection principles under the Dodd-Frank Act Section 1033 to help safeguard consumer interests as the consumer-authorized aggregation services market develops.
- 2 Source – CEBR study into open banking February 2018.
- 3 Source – PWC: the future of open banking – June 2018.
- 4 Source-EY: Open Banking Opportunity Index – October 2018.
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- 9 Source – Accenture: it is now open banking.
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- 11 Source – Transunion: the evolution of open banking – January 2019.
- 12 Deloitte insights.