

Financial Services Affect by Financial Technologies

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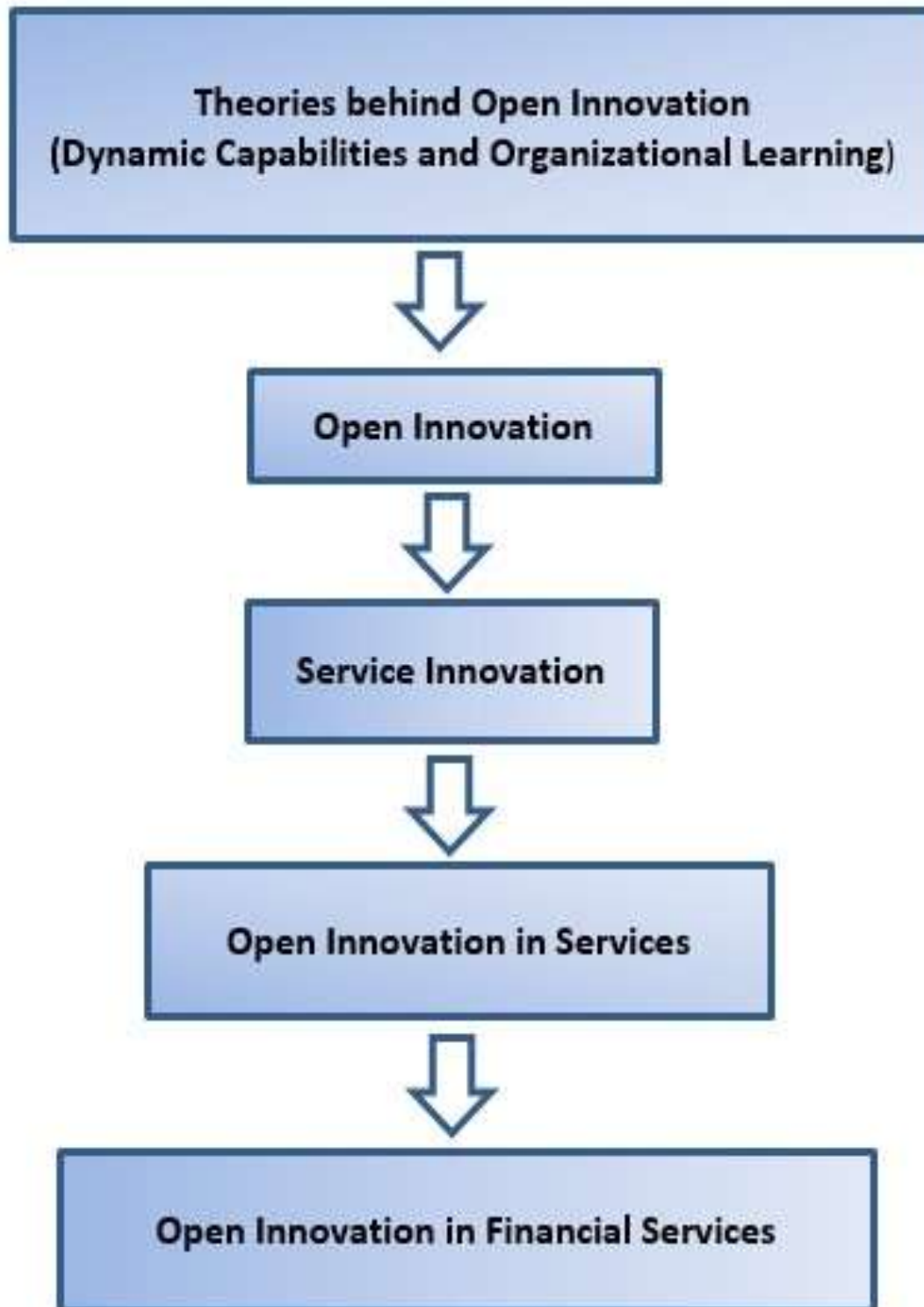
ABSTRACT

Financial offerings have been revolutionized by the upward shove of economic technologies, generally called "FinTech." FinTech refers to the utility of science to enhance and automate economic services. This has impacted the economic offerings industry in various ways. Firstly, FinTech has made economic offerings greater available and convenient. Customers can now get entry to monetary offerings from the remedy of their residences the use of their smartphones or computers. This has led to extended opposition in the monetary offerings industry, with standard banks going through opposition from new FinTech players. Secondly, FinTech has enabled the improvement of new economic merchandise and offerings that had been before unavailable. For example, peer-to-peer lending, digital currencies, and robo-advisors have all been made viable via FinTech. Thirdly, FinTech has multiplied the effectivity and pace of economic services. Transactions that used to take days or even weeks can now be executed inside seconds or minutes. This has led to decreased prices and extended comfort for customers. Despite these benefits, FinTech has additionally delivered about some challenges. For example, the use of digital currencies has led to worries round protection and regulation. Additionally, the upward shove of FinTech has led to job losses in some standard economic offerings industries. In conclusion, FinTech has had a sizable influence on the economic offerings industry, main to improved competition, new merchandise and services, and accelerated efficiency. However, it is necessary to proceed to display and tackle any challenges that occur as a end result of this disruption.

1. Introduction

Financial technologies (FinTech) are changing the landscape of the financial services industry by revolutionizing the way financial services are delivered. The integration of digital technology into financial services has significantly improved the speed, convenience, and accessibility of financial services, making them more affordable and efficient for customers. The impact of FinTech on financial services has been widespread, affecting various sectors such as banking, investment, insurance, and payment services. In the banking sector, FinTech has enabled the development of online banking, mobile banking, and digital payment solutions, which have reduced the need for physical bank branches and increased customer access to financial services. In investment services, FinTech has facilitated the development of online investment platforms, automated portfolio management, and robo-advisors, which have made investment services more accessible to a wider range of customers. In the insurance sector, FinTech has led to the development of digital insurance platforms, usage-based insurance, and telematics, which have increased efficiency and reduced costs for insurance providers and customers alike. Furthermore, FinTech has also facilitated the development of new payment systems, such as digital wallets and peer-to-peer payment solutions, which have made payment services more accessible and efficient for

customers. Overall, the integration of financial technologies into financial services has revolutionized the industry, providing customers with more accessible, affordable, and efficient financial services, while also creating new opportunities for innovation and growth in the industry.



These encompass knowledge-based conceptions of the association dynamic capabilities, organizational gaining knowledge of Levinthal Relational Perspectives Levinthal and March Resource Dependency Theory and Game Theory Here we center of attention on these of

dynamic abilities and organizational learning. They range from different theories in that they make a contribution to the appreciation of how companies create information, deliver organizational change, and increase competencies in dynamically altering environments such as monetary services. This can make it less complicated for fintech groups to apprehend and set up organizations' perceptions of the hastily altering fintech environment. Following the success of Chesbrough in uncovering the open innovation paradigm, the way expertise is generated, received, and derived from the know-how and mental property has passed through profound modifications as science and markets are altering rapidly. Companies are redefining their boundaries to leverage know-how and development, now not simply to make investments in inner R&D. This state of affairs opens up new possibilities for collaboration between one-of-a-kind gamers and leads to new enterprise fashions and the advent of value.

1.1 Research background

Topics	Scholars	Contribution
Theories Behind Open Innovation	Barton (1992), Teece et al. (1997), Teece (2007), Cavusgil et al. (2007)	Dynamic Capabilities
	Levinthal & March (1982, 1993), Nonaka (1994), Steensma (1996)	Organizational Learning
Open Innovation	Chesbrough (2003, 2006)	Open Innovation paradigm
	Gassmann & Enkel (2004)	Inbound, outbound, coupled processes
	Chesbrough et al. (2006)	Intellectual property management
	Huston & Sakrab (2006)	Case Study: P&G
	West and Gallagher (2006)	Challenges to apply Open Innovation
Service Innovation	Sindho (1997), Vennemelen (2004), Hestog et al. (2010)	Management of innovation in services
	Vargo & Lush (2004, 2006, 2008), Lush et al. (2007)	Service-dominant logic
	Gebauer & Friedli (2005), Neu & Brown (2008)	Success factors for transition towards service-centric approach
	Chae (2012)	Strategic orientations of service innovation
	Reuver & Bouwman (2012)	Mobile service innovation
	Perks et al. (2012)	Radical service innovation
	Kindström et al. (2013)	Dynamic capabilities approach for service innovation
	Hidalgo & D'Alvino (2014)	Inward and outward activities in service innovation
Open Innovation in services	Ballon et al. (2008)	Service model for open services
	Chesbrough (2010)	Importance of platforms
	Chesbrough (2010), Mina et al. (2014)	Open Innovation in services
Open Innovation in financial services	Vermeulen (2004)	Limitations of innovation in financial services
	Kousaridas et al. (2008)	Open financial services architecture
	Fasnacht (2009), Mention & Torkkeli (2014)	Open Innovation in financial services
	Martovoy et al. (2012), Martovoy (2014)	Advantages and disadvantages of Open Innovation in financial services
	De Smet D et al. (2013)	Knowledge sourcing from customers for financial services
	Salampasis et al. (2014)	Role of trust in open innovation for financial services
	Mention et al. (2014)	External drivers for Open Innovation in financial services
	De Smet D et al. (2015)	Learning mechanisms of alliances in financial services

1.2 Research Gap

All of the above researchers have made valuable contributions to research on open innovation in financial services. They provide unique insights for financial services from an open innovation perspective. Arguably, qualitative research combining different perspectives in the fintech space, including established financial organizations and fintech startups, is still needed. It can lead to disruptions in financial markets in the eyes of those who caused the disruptions and attempted to manage them. It can be provided the particular on the process in on

They can share extremely valuable information on the triggers of FinTech developments, technological changes, business models, services, relationships, customer habits and the advantages and disadvantages of each party, the culture and possible opportunities and threats in the FinTech space. Revised on Tringale in financial institutions regarding and contribution

While these changes can threaten traditional models, they can also foster collaborative change and new opportunities.

1.2 Research Questions and Objectives

This lookup ambitions to fill the Research Gap and tries to shed some mild on the Fintech house from an Open Innovation perspective.

In order to facilitate answering this question, it is divided into 5 lookup questions

Research Question	Research Objective
RQ1: What are the triggers behind Fintech development?	To understand the triggers behind Fintech development.
RQ2: What is the role of open innovation in Fintech space?	To understand role of open Innovation in Fintech space.
RQ3: What are the advantage and disadvantage of Fintech?	To understand advantage and disadvantage of Fintech.
RQ4: What are the opportunities and threats in Fintech space?	To understand the opportunities and threats in Fintech space.
RQ5: What are the risks and challenges in Fintech space?	To understand the risks and challenges in Fintech space.

Firstly, appreciation of the triggers at the back of Fintech improvement is the mainstay of the research. It can supply perception into the complete environment. There is a fast-paced altering region and respondents can share precious data about it. Secondly, this lookup focuses on achieving conclusions from the Open Innovation perspective.

In this regard, appreciation of the function of Open Innovation and its implementations in the Fintech house is crucial. Thirdly each party, incumbents and Fintechs, may additionally possess extraordinary abilities and these can also lead to distinctive techniques and engagements in the sector.

1.4 Structure of thesis

Firstly, understanding the triggers at the again of Fintech enhancement is the mainstay of the research. It can provide an understanding of the whole environment. There is a fast-paced altering vicinity and respondents can share treasured facts about it. Secondly, look-up up focuses on attaining conclusions from the Open Innovation perspective. In this regard, perception of the feature of Open Innovation and its implementations in the Fintech residence is crucial. Thirdly every party, incumbents and Fintechs, may also moreover possess first-rate skills and these can additionally lead to exclusive strategies and engagements in the sector.

Therefore, grasping their advantages and risks will be useful. Fourthly, these new strategies and engagements might also moreover supply new chances and threats for the stakeholders. This moreover falls into the scope of this research. Lastly, holding close to the risks and challenges in the Fintech location can additionally make a contribution to understanding the future of the organization and viable new roles of the actors.

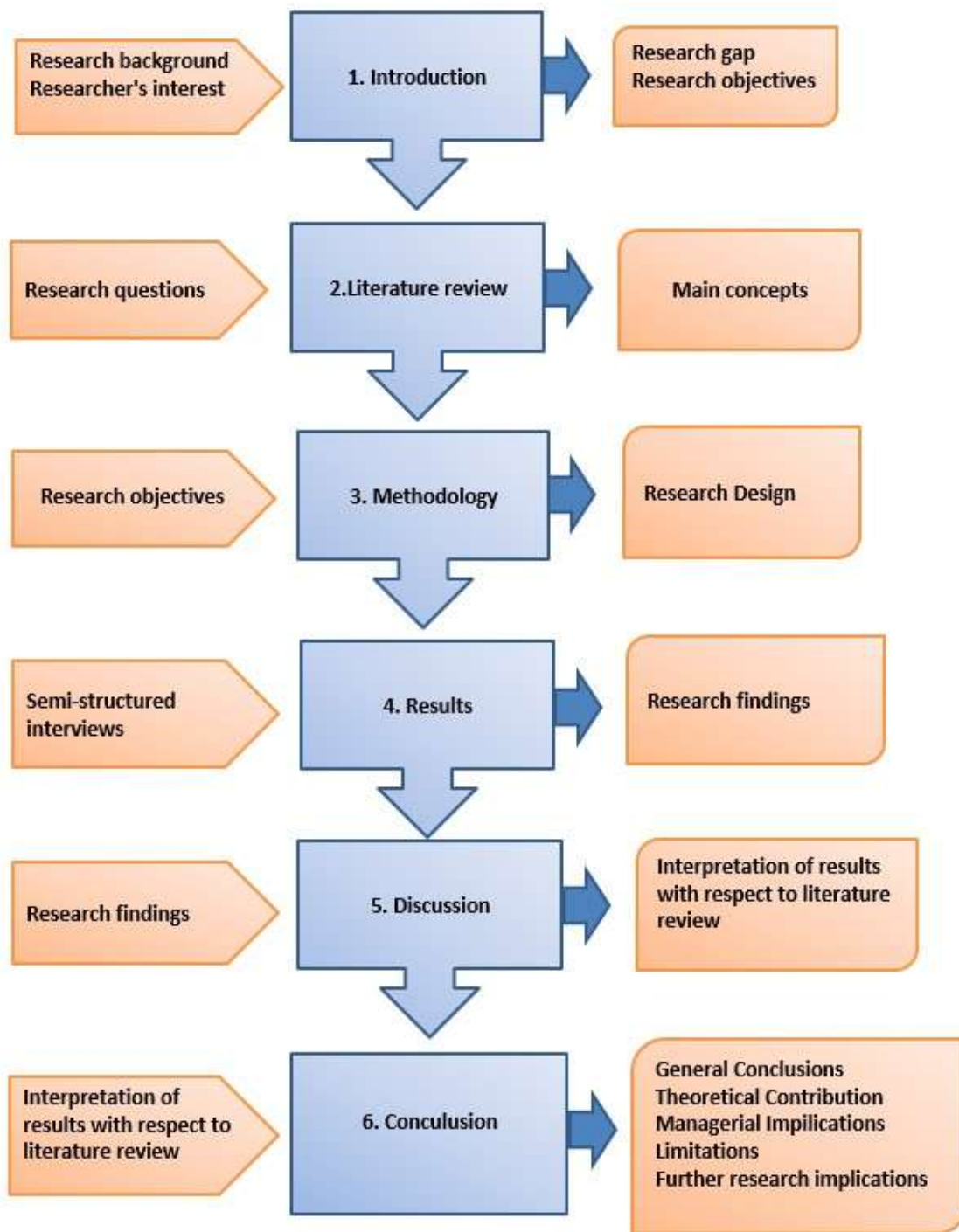


Figure 2. Thesis structure (Developed by the author)

2. LITERATURE REVIEW

Fintech, often known as financial technology, is the application of science to provide consumers and organisations with financial options. Fintech has changed the financial services sector, upended conventional commercial enterprise trends, and created new opportunities for businesses, entrepreneurs, and consumers. This review of the literature looks at how fintech has impacted financial services, including the adoption of new technology, modifications in consumer behaviour, and effects on well-known financial institutions. Utilising New Technologies Peer-to-peer lending, digital currencies, and mobile payments, among others, have all been improved because to fintech. With the help of technological advancements, such as blockchain, cloud computing, and mobile devices, these options are now feasible. These new applied sciences have been pushed towards adoption.

2.1 Theories Behind Open Innovation

As cited with the aid of Kutvonen there are quite a number of theories in the back of the open innovation paradigm. These theories encompass knowledge-based views of the association dynamic abilities of organizations mastering relational views, aid dependency idea, and recreation theory. This learning focuses on dynamic skills and organizational getting-to-know ideas due to the fact how organizations create statistics and power the transformation.

Dynamic capabilities

Dynamic Capabilities focuses on private enterprise in rapidly changing environments and explains wealth creation in the se environments). It asserts that a firm's specific processes, assets (including intellectual assets and complementary assets) and adopted or inherited paths of evolution form a firm's competitive advantage Furthermore, it fills a gap in how to create sustainable competitive advantage from a resourcebased perspective By developing dynamic capabilities, organizations can sustain superior longterm business performanceIn this sense, the Dynamic Capabilities approach seeks to find answers to the modes of wealth creation. It's worth thinking about why some companies are better at building a competitive advantage than others.strategies and building technology assets. In contrast, competitive firms that can react to market changes in a timely manner and better manage their internal and external capabilities perform better in a variety of markets). These capacities are called the dynamic capacities" of the company.They must be able to develop new capabilities in a rapidly changing business environment. In this sense, the ability to use technology, timing, the nature of competition, strategic management, the ability to quickly adapt to new environments, and the ability to integrate internal and external resources become more problematic. the ability to create new and innovative forms of competitive advantage is the backbone of dynamic capabilities.Innovation activities are sources of technological opportunities, and organizational structures play an important role in identifying these opportunities. In this respect, cooperation and participation in basic research is mainly ensured by universities.On the other hand, learning these abilities is impossible. Organizations must build it themselves (t also means that these organizations must have entrepreneurial skills to develop dynamic capabilities. The rapid development of open markets, global competition and technological changes are driving the need for ownership of these types of assets in accordance with technical requirements and customer demands. Moreover, new players in the market are threatening the revenue of established organizations. The relationship between an organization and its customers, suppliers, and government affects market opportunities. Moreover, their dynamic capacities can be limited by rules, including legal regulations.While developing dynamic capabilities, companies may face a number of challenges.First , innovations often present themselves as threats to existing models and systems. Organizations tend to eschew radical innovation through layers of procedures, free assets, and routines in favor of incremental innovation.

Organizational learning

Companies which are dealing with unexpectedly altering environments and attempting to construct dynamic competencies ought to be in a position to create records in addition to technique it. A section of company which possess abilities for developing records can have an effect on total business enterprise and set off it to seriously change into an revolutionary organization. It is vital to word that person mindsets and competencies are imperative to set up an organizational know-how introduction (Nonaka, 1994). When it comes to successes or screw ups in an organization, businesses examine from their experiences in an experimental way. Success of an organisation is partly structured on its technology. In technological know-how sense, corporations encompass three kinds of techniques to learn. These are respectively adoption of search strategies, enhancing search competences and adopting their aspirations to examine what to hope for (Levinthal and March, 1981). According to Ford (1988) (cited by way of Steensma, 1996) exterior acquisition of collaboration thru inter-organizational collaboration is indispensable for science strategy. Acquired technological know-how must be like minded to the favored skills in the organization. There may be a gaining knowledge of gap between the complexity of the science and understanding of the firm. By enhancing its organizational studying skills and lowering systematic shift, corporations can gain extra in a collaboration. There are a variety of kinds of which includes lookup contracts, licensing agreements, minority investments, joint ventures and fairness acquisitions (Steensma, 1996).

Organizations would possibly have to overcome many roadblocks for higher getting to know thru these activities. In this regard, their tries thru simplification and specialization may additionally lead to disasters in predictions.

2.2 Open innovation

A change is being observed in the way that companies obtain and value information and create commercial value out of it. In this regard, “Closed Innovation” and “Open Innovation” terms are promoted (Chesbrough, 2020). In a nutshell, “Closed Innovation” defines innovation strategies assuming that companies should generate value only from their own ideas and they should develop, finance and control them on their own without involvement of any other parties. In contrast, “Open Innovation” posits that companies should utilize external ideas and external ways to the market as well as internal ideas and internal ways for generating value (Chesbrough et al., 2019 Chesbrough, 2021). This notion affect strategies in many aspects including R&D, intellectual property protection, investments and venture capital. It addresses R&D as an open system. Venture capital, mergers and acquisitions, co-developments, spin-offs, in-licensing, out-licensing, participation of employees in partners are some methods to nurture and exploit Open Innovation opportunities for organizations Open Innovation notion consists of three different types of core processes. These are respectively outside-in processes, inside-out processes and coupled processes. “Outside-in” process is the enhancement of knowledge in a company by leveraging external sources These external resources can involve suppliers, customers, competitors, universities and other nations “Inside-out” process is the share of knowledge which is generated inside company boundaries to external parties. Lastly, both of outside-in and inside-out methods can be employed simultaneously as “Coupled” processes Open Innovation advocates a proactive IP strategy IP is regarded as an asset for generating value. While companies may prefer to sell or out-license their IP, instead of benefitting them in their own products or keeping idle for possible future uses, in-licensing or acquisitions are also quite possible, instead of investing to build internal R&D capabilities and waiting for the results All these decisions are relevant to the transaction costs and market strategies of the company. Company might find out-licensing internal technology more profitable than using it in its own products. Qualcomm exemplifies well this situation. The company shifted its strategy from producing its own devices and using CDMA technology in these products to out-licensing its CDMA technology to phone manufactures since licensing generates more revenues In the light of Open Innovation strategy, such markets hold tremendous potential for possible partnerships. There are many examples of companies losing market share and revenues due to their Closed Innovation strategies.

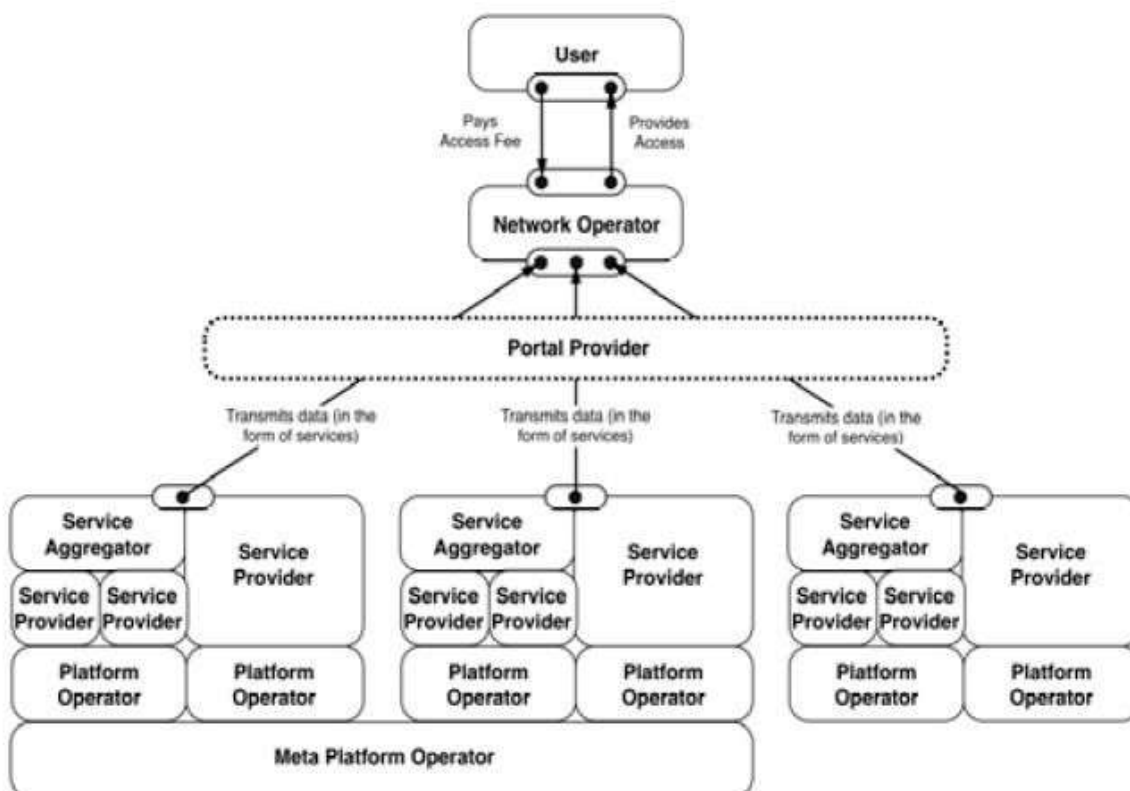
2.3 service innovation

It is moreover described as a subset of the products (Fasnacht, 2019). Disruptive forces consisting of extended competition, unsustainable excessive debt tiers, and stagnation change the markets). Services grew to grow to be the backbone of economies although they have been underestimated through the way of ordinary classificatory systems. Moreover, they are turning into larger apparent and crucial as specialization will amplify the Rate of choices in the monetary gadget is about 60% in pinnacle forty economies and 80% in the US (OECD, referred to by way of potential of Chesbrough, 2010). In this sense, productiveness is an alternative primarily based on service matters to do in developed countries Economic matters to do are moving towards service-dominant exact judgment from goods-dominant logic. In goods-dominant logic, devices of outputs are regarded as elements of exchange. While goods-dominant exact judgment highlights the effectivity of manufacturing and distribution, it fails in assessing the perception and skills of human beings in the use of and developing these goods. On the exclusive hand, a service-dominant proper judgment advocates that properties are configured dynamically in service buildings, and neighborhood actors are integrating these dynamics sources and take section in the creation of choices Many college students reflect on the consideration that the service-dominant approach is overtaking goods-dominant method in many elements Chesbrough (2019) additionally states that organizations ought to alternate their product centered questioning in the route of According to service-centred view, provider is the quintessential foundation of alternate and all economies are seen as service economies. In addition, service-centred view places the customers in the centre and see them as co-creators of the value. The purpose in the again of upward thrust of choices is increased specialization and outsourcing (Vargo and Lusch, 2019). There are additionally conceptual transitions in the service-dominant logic. Services, offerings, benefit, cocreation and value-creation phrases are promoted as a alternative of goods, products, feature, value-added and supply chain Service-dominant approach moreover emphasizes that the functionality for integrating specialised competencies to choices will make bigger aggressive advantage. This

aggressive attain differs from such as price to products. It requires information of brilliant disciplines which consist of human resources, operation management, finance and IT (Lusch et al., 2020).

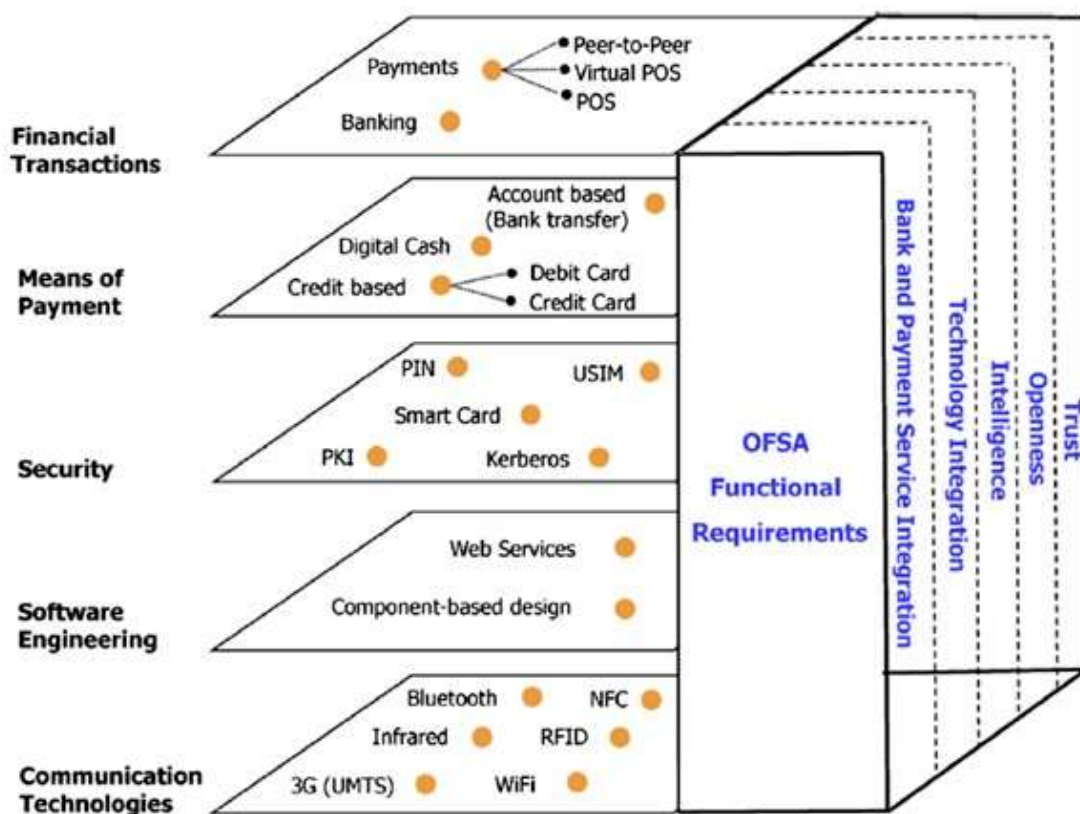
2.4 Open Innovation in Service

Fast-tempo features in science and the explosion of mobile-utilized sciences shortened product existence spans. Thanks to the new data technologies, accomplishing facts grew to grow to be enormously reachable and this led to the emergence of new entrants in a number of industries. Because of the immoderate competition, firms are developing tailor-made merchandise in shorter periods. Even the most usual agencies are struggling in opposition and satisfying buyer demands. They strive to come across new techniques to change this country of affairs (Chesbrough, 2019). According to Chesbrough (2019), disbursed expertise and manufacturing, very low fee transportation of manufactured gadgets spherical the world, and the cut price in time for a product to stay in the market create a commodity trap for product-founded companies. Once an organization produces an aggressive product, it is on hand for others to have a look at how to enhance a similar one. This state of affairs forces businesses to trade their product-targeted strategies (Chesbrough, 2019). Open service innovation is a really helpful way to ruin this commodity trap. It consists of four steps. Firstly, agencies need to take a look at their merchandise or offerings as open businesses for creating differentiation. This view requires a change in organizations. Innovation gadget can be separated as innovation in back-end strategies and innovation in front offices (Silva, 2019). Some groups are maintaining apart their front-end and back-end companies due to the fact they require the execution of great strategies. While front-end corporations are dealing with customers and require personalized solutions, back-end constructions are larger charge and effectivity focused. Secondly, they have to embody their purchasers for the creation process. Thirdly, companies have to lease Open Innovation techniques for enhancing provider innovation.



2.5 Open innovation financial service

The financial place has exceptional importance for the health of the total financial machine as correct as its contribution to the Gross Domestic Product (GDP) of us of (Mention and Torkkeli, 2014). It used to be seen as a conservative business enterprise with its tightly closed structure, industrial company fashions, and described boundaries. However, this fashionable structure started out to trade at the beginning of the 90s. Actually, essential chances in customers' integral desires such as depositing, sending, and withdrawing money or monetary advising didn't occur. The way to execute these matters to do and develop enhancements has radically changed. The unstable nature of markets, newly utilized sciences, and changes in demographics are some causes lying at the return of this situation. Changes in patron demographics and their requirements added a new trend for innovation and new corporation chances (Fasnacht, 2020) Mentioned stipulations fostered economic innovation and many new merchandise and choices had been provided to consumers Services in the monetary region are now no longer principally primarily based on bodily goods. In this sense, upgrades in the monetary areas are drastically intangible Innovation in monetary choices can be described as an innovation in merchandise or organizational constructions which give up end results in cost or danger cut prices, and beautify economic choices (Arnaboldi and Claeys, 2019).



Mobile monetary offerings context and Open Financial Services Architecture

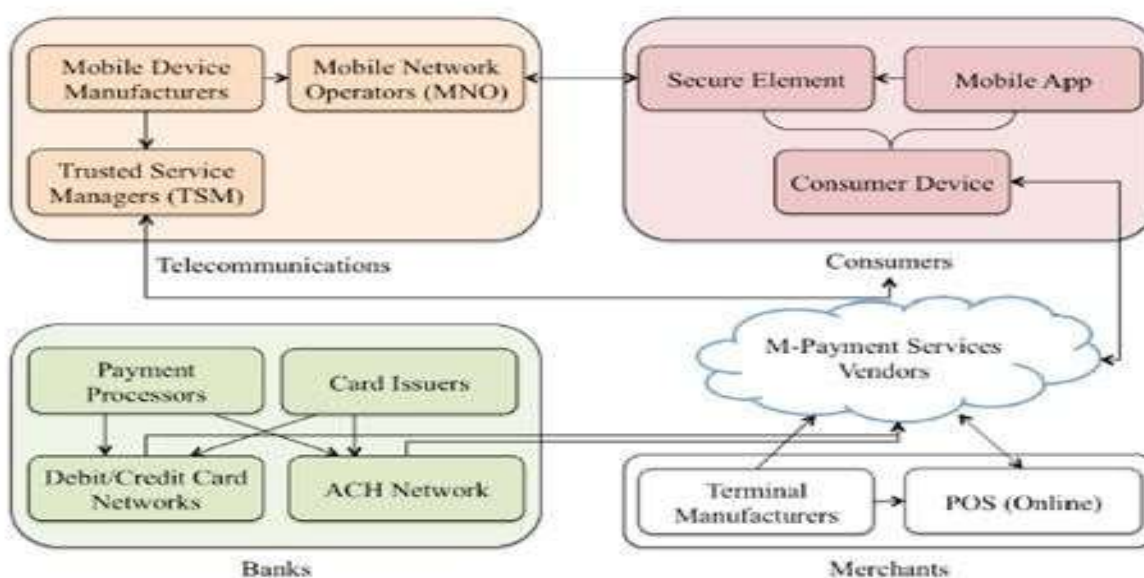
When it comes to the upgrades in the financial sector, the findings show off that upgrades outside from the organization have a profound influence. In this respect, monetary organizations are sure to the upgrades developed by way of others, specifically data and communications utilized sciences corporations (Salampasis et al., 2014). As a result, adoptions of these upgrades to the financial vicinity and understanding inflow are higher than ordinary than indoors enchancement and information outflow from the monetary location.

2.6 Emergence of New Technologies in the Fintech Scene

The emergence of new technologies and improvements in the structure Fintech space. In this sense, vital trends are treated in this chapter

Adoption of Near-Field Communications (NFC) and Tokenization to Mobile Payment Solutions

The adoption of Near-field communications (NFC) to smartphones is necessary for mobile phone proximity repayments (Marinetti et al., 2021). By doing so, consumers can use their smartphones as digital wallets (Pham and Ho, 2020). It approves enjoying playing cards and terminals to “speak” each and every exclusive barring any bodily contact. It gives easier, quicker, and greater reachable cashless transactions for the consumer and carrier company even as it reduces costs. It allows smartphones to be used as digital wallets. It attracts many science giants and customers. Product-related factors, personal-related factors, the splendour of specific choices, and perceived risks by means of way of the purchasers have an impact on the intention to undertake this science NFC science helps the shopping for manner and safety of information. It is simply thinking about it eliminates the choose of cash. In addition, it speeds up the charging process. Mobile neighborhood operators and banks are intently making investments in NFC repayments through collaboration. However, there is a lot to do to extend customer enchantment various occasions take duties in NFC payments. NFC chips and Secure Element (SE) are equipped to devices via technological understanding carriers and cell phone neighborhood operators. Issue special playing cards and cost terminals are managed through the way of the banks. In addition, new NFC-enabled point-of-sale (POS) terminals have to be set up with the useful resource of the merchants. Moreover, gateway service carriers relied on service) furnish choices for transmission, method, and protection of the cost transactions.



NFC-enabled mobile payments platform

BIG DATA

The volume of data created day by day has pretty increased. The lion’s share of lying at the again of this prevalence belongs to the traits in statistics utilized sciences and the explosion of phone laptop usage. These data embody structured, semi-structured, and unstructured textual to the multimedia content material cloth on many structures collectively with social media sites, the Internet of Things (IoT), and cyber-physical buildings (Sivarajah et al., 2020). 2.5 quintillion bytes of documents (1 quintillion bytes = 1 billion gigabytes) is being produced each day Silicon Valley Bank declared that 90% of the world’s statistics had been as soon as created in the remaining two years. Therefore, “big data” notion has been many instances expressed due to the truth that and it grew to be a heat problem for researchers and organizations in quick notice. It describes the new utilized sciences and methods for facts management. Big records analytics is the way to manage, system, and analyse of huge extent of data. It grew to grow to be a differentiator between high-performing and low-performing firms (Wamba et al., 2022). German et al. (2020) location in advance that there is an nice correlation between the company’s average overall performance and the deployment of consumer analytics. Deployment of data necessities and digital records interchange codecs facilitated the amplify in this self-discipline as excellent as the enhancement of ultra-fast world connections, most useful databases, and information buildings (Chen et al., 2021). On

the distinct hand, researchers have to overcome challenges associated with facts volume (large datasets of data), vary (multiple information formats), veracity (complex form and anonymities), tempo (high rate of statistics flow), variability (change in that capability of data), visualization and value. Data acquisition and warehousing, fact mining, statistics aggregation and integration, statistics comparison and modelling, and information interpretation are the approach challenges. Lastly, privacy, security, sharing, possession, and a fee of data are administration challenges. Leading e-commerce carriers and their quite scalable commerce constructions have contributed to the enhancement of big data analytics. Personalized buy hints which have been created through purchaser facts analyses have been 35% of all purchases on Amazon.com. In monetary services, large statistics-centered techniques permit for devising tailored merchandise via semantic analyses of personal data. Mobile devices and functions facilitate the perception of proper time behavioural information of purchasers' behaviour of capacity of collecting and inspecting data in on line conversations, transactions, check-ins, and likes on Facebook or many distinctive platforms. Analysis of the usage of statistics such as driver's day-by-day habits approves for imparting a greater insurance plan sketch policy. On the one-of-a-kind hand, greatest statistical techniques in thither eat administration choices furnish a greater understanding for the correlation between factors and risks in the finance sector.

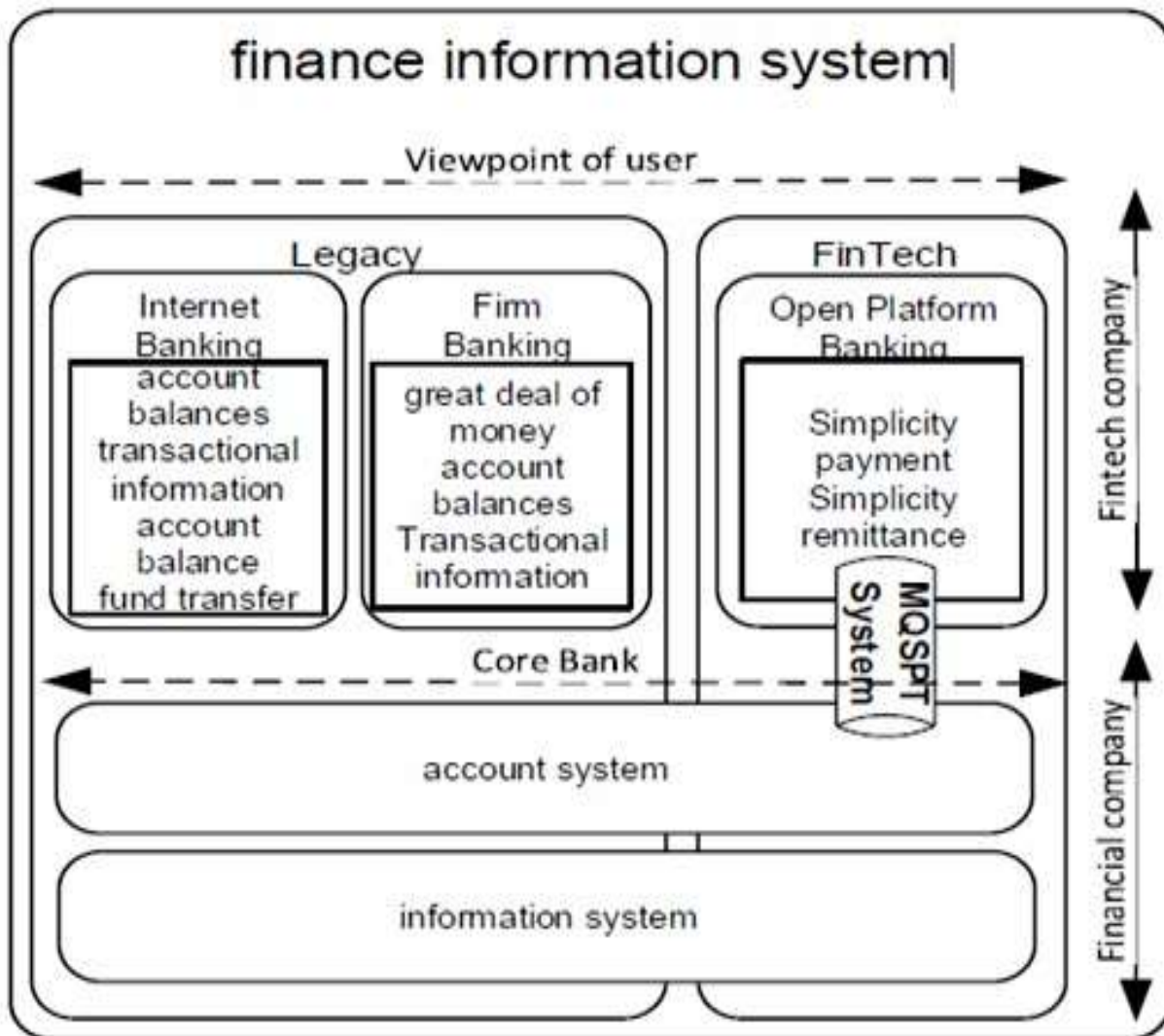
Cloud service

Cloud computing refers to the transport of one-of-a-kind IT property and choices over the Internet with ubiquitous and on-demand get entry to model. In this model, clients don't have to very very own records centers, IT infrastructure, and software program application services. In addition, charge constructions are greater flexible than exceptional offerings. "Cloud" time duration grew to be well-known after the announcement of IBM's Blue Cloud. Cloud computing offers business-focused, dynamic, and scalable choices over the internet with a shared pool of computer resources. It offers on hand to use Web choices that furnish storage, computing electricity, and special functions. It lowers the expenses as an Cloud computing relies upon the inclinations of disbursed computing, grid computing, utility computing, and Web services. The transition from Web 1.0 to Web two added "low-touch, low-margin, and low-commitment" self-services. This facilitated the use of Web choices and repayments for buyers and merchants. It moreover reduces red tape and wishes for consumer relationship management. For instance, Amazon Web Services commenced imparting pay-as-you-go computing with no contract. Moreover, human beings commenced the usage of Google AdSense to collect revenues from classified ads barring developing a relationship with

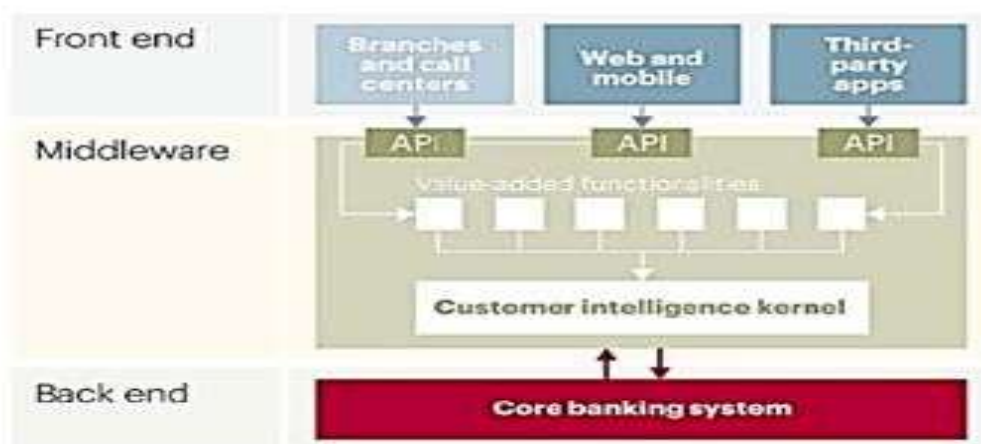
Individuals and corporations can use these choices barring investing carefully in IT infrastructure. Required hardware and software program applications are handy over the Internet. Overprovisioning is no longer bother and they can use the required volume of residence and computational electrical energy anytime

Application programming interface (API)

API (Application Programming Interface) is a set of methods and equipment enabling one-of-a-kind software program structures to speak every different efficiently. While they are being used to facilitate the engagement of Fintech organizations as innovation suppliers with finance establishments by using constructing blocks of flexible services, they are additionally used for combining exclusive offerings and growing extra fee (Chishti and Barberis, 2020). They provide secure, managed, and economical get admission to records and performance via 1/3 of events (EBA, 2020). It is clear that corporations such as Google, Twitter, Facebook or Salesforce couldn't have grown so quickly except by exploiting the possibilities of API technological know-how (EBA, 2020). Google Maps APIs, YouTube APIs, Twitter APIs or Amazon Product Advertising APIs are properly acknowledged examples in this sense. For instance, builders can embed Google Maps in their web pages by using the use of Google Maps API. On the different hand, Twitter presents two APIs for developers. The first one, The Rest API, permits builders to use Twitter's core data. The 2nd one, Search API, lets builders to use Twitter search and traits data. Similarly, many incumbent employers and Fintech start-up's APIs talk and link core economic operations with different services. Key technical standards mendacity at the back of API are respectively statistics transmission, records exchange, information get entry to, and API design. Data transmission has to assurance the protection of the process. Most of the APIs rent HTTP/HTTPS as a transport layer when you consider that they are pretty easy and compatible. While REST is extra centered on fixing performance, scalability, modifiability, portability, and reliability-associated issues and is greater popular, SOAP is considered an answer for agency environments and it is extra complicated than REST for implementation.



FINANCIAL INFORMATION PROCESS



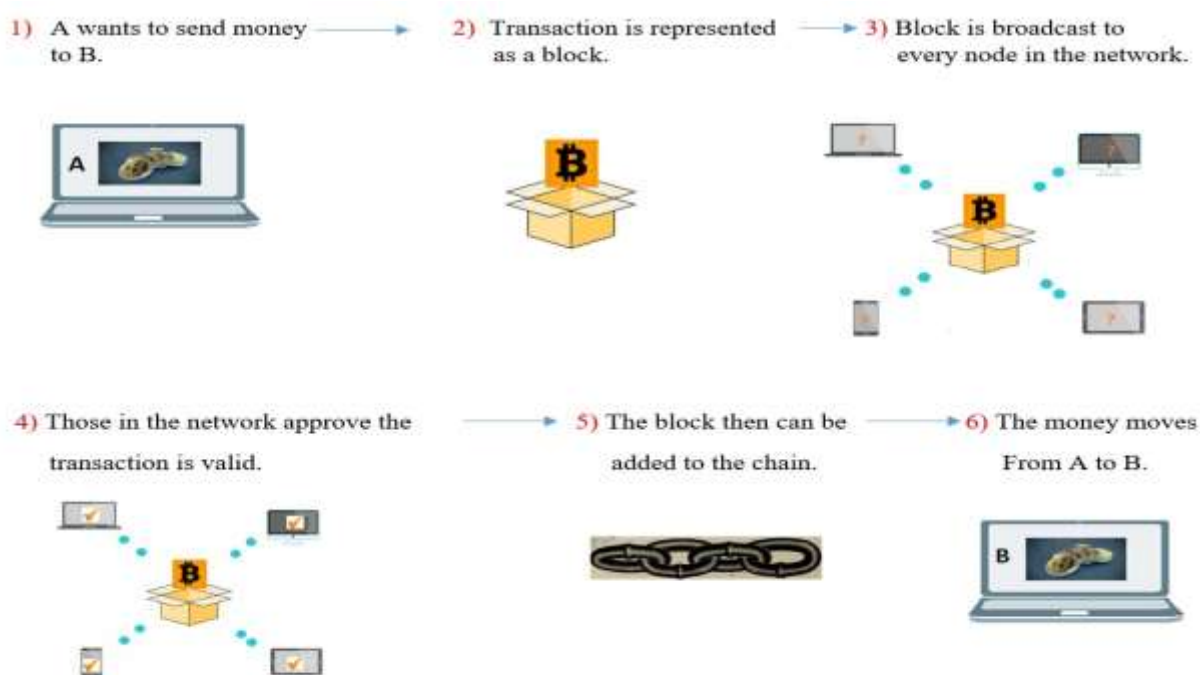
COMMUNICATION BETWEEN DIFFERENT LAYERS IN BANKING

Blockchain and Bitcoin (as a universal instance of blockchain technology)

Blockchain time period represents a dispensed database or public ledger which is carried out and shared amongst participators. The majority of the respondents attain a consensus to affirm every transaction in the public ledger. It is not

possible to erase the information. Marc Andersen, a well-known investor, and entrepreneur in Silicon Valley mentioned that blockchain science is the most vital invention when you consider the invention of the Internet. Blockchain science depends on the white paper, Bitcoin: A Peer-to-Peer Electronic Cash System, posted by way of a man or woman or a crew beneath the identity of Satoshi

Blockchain science is being extensively utilized in monetary and non-financial offerings for many years except for a flaw. The most famous instance of blockchain science is Bitcoin. It permits nameless transactions besides any governmental control. In common finance, we want a 1/3 entity as a positive dependent on authority to tightly closed our assets. Money fee is under the manipulation of central banks and the government. Also, we want banks to hold and switch digital assets. Bitcoin defies this manipulation mechanism and allows frictionless motion of digital currencies except in the involvement of any intermediaries. On the different hand, we additionally want 0.33 events for non-financial purposes. For instance, an e-mail provider vendor notifies us of the shipping reputation of our e-mails or we want certification authority for verification of a digital certificate. In this sense, blockchain technological know-how can revolutionize the digital world via dispensed consensus for each transaction. It is additionally feasible to confirm any digital property in any time in the future. It allows this besides any involvement of 0.33 parties. The main elements of blockchain technological know-how .



How a blockchain works (Developed by means of the creator based totally On Crosby et

One of the most necessary factors in this device is preserving the order of transactions. Therefore, it is fundamental to devise a mechanism to maintain the transactions in order. Blockchain technological know-how solves additionally this problem. Transactions are positioned in agencies known as blocks and they are linked to every other. Transactions that came about at the identical time are positioned in the identical block. These blocks are linked to every different in a linear and chronological order. Every block consists of the hash of the preceding block. At this point, a 2nd trouble occurs. How is it viable to stop to construct a block of unverified transactions and broadcast it to different nodes? A mathematical puzzle is brought to clear up this problem. Each block must include a reply to unique mathematical trouble to be accepted. A node that generates the block desires adequate computing sources to resolve this puzzle. The answer is additionally known as “proof of work”. It takes about ten minutes for a node to remedy the puzzle and generate a single block. Nodes-producing blocks are known as “miners” and they are financially awarded. As the block is generated, it is broadcasted to different nodes. The mathematical fashions at the back of this gadget is complex and it stabilizes the order of the blocks. Only the longest blockchain is legitimate in the network. Therefore, an attacker ought to construct the longest blockchain in the community to disrupt the system. In the mild of required electricity and effort, it makes any fraud, not possible

Satoshi Nakamoto's work solves the well-known double-spending hassle which is additionally acknowledged as Byzantium Problem.

2.7 investments in Fintech

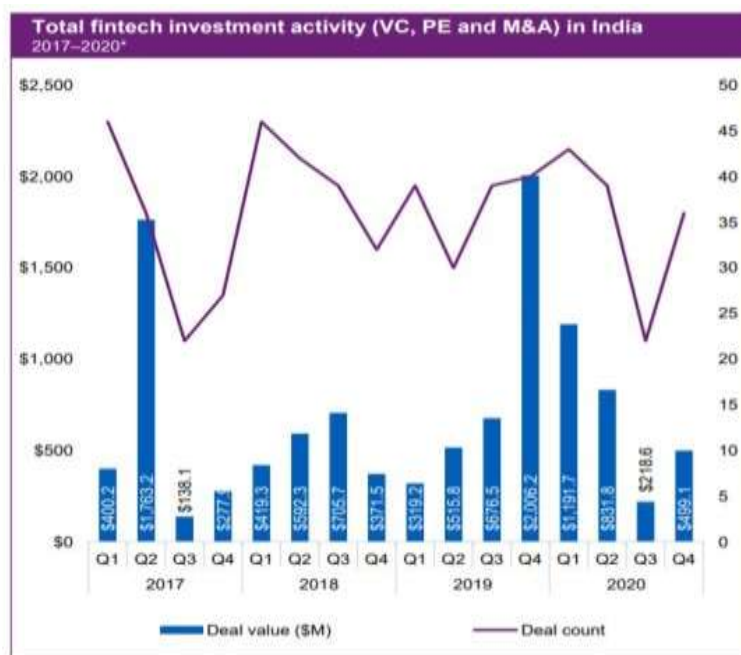
Investments in the Fintech zone exploded in the latest years. According to Accenture evaluation of CB Insights information (2021), investments skyrocketed to \$22.2 billion in 2019 from 1.7 billion in 2022. Moreover, whilst 338 offers have been made in 2020, the variety of offers in 2020 used to be 1108 (Accenture, 2022). These figures are some distance past expectations. In 2020 Accenture estimated that international Fintech investments would upward thrust to \$6-8 billion for 2018). However, the authentic investments in 2022 almost tripled and reached around \$12 billion in 2022 It is clear that this increase will proceed in foreseeable future and greater traders will take part in this environment. According to Ernst & Young (2021), California, New York, London, Singapore, and Hong Kong are among the main Fintech ecosystems. There are exceptional rankings in phrases of talent, capital, coverage, and demand amongst these countries. UK, California, and New York appear the great ecosystems for Fintech corporations (Ernst & Young, 2019). On the different hand, UK's Brexit selection can also negatively affect its aggressive advantage. Us of is an appealing center for Fintech start-ups due to the easiness of verbal exchange between the economic establishments positioned in the country, the get admission to talent, funding, and the country's flexible regulatory regime. However, the uncertainties and dangers jeopardize these benefits after the referendum. Firstly, Ireland has a possibility of turning into the solely English-speaking united states in the EU and threatens the UK's high-quality role in phrases of talent. Secondly, regulatory blessings of the EU may additionally make contributions to Ireland's upward thrust to appeal to investments. Lastly, new international facts safety policies had been accepted with the aid of the EU and they will enter into pressure in 2022 APAC area consisting of India, Singapore, Hong Kong, China, Japan and Australia is viewed as the 2d largest funding location in the back of after North America. The quantity of funding in this location expanded four-fold in 2020 and reached to \$4.3 billion. China has the lion's share via attracting 45% of this amount. Most famous phase for funding in this area is repayments through 38% of the whole (Accenture, 2020). Apart from these countries, there are exceptional areas centered on specific fields. In this sense, Israel's knowledge in cybersecurity,

Market Size



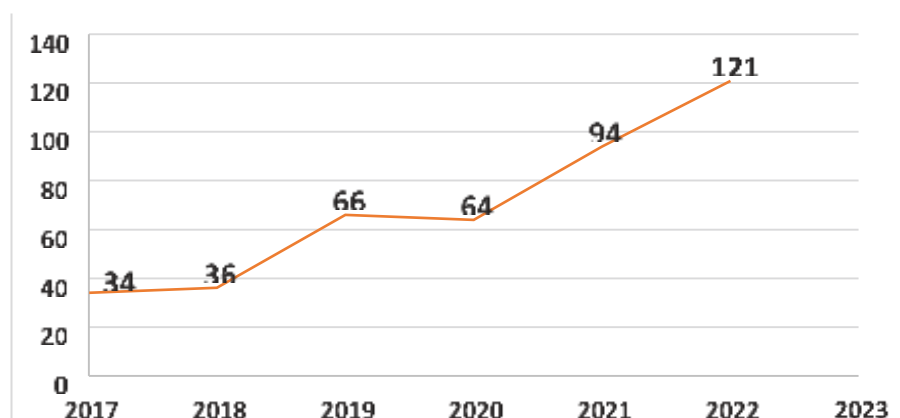
Investment





Fintech market overview in special international locations between October 2020 and September 2022, values are in billion £ (Developed via the writer primarily based on Ernst & Young, 2024

The upward thrust in numbers of Corporate Venture Vehicles additionally displays the improvement in Fintech space. Details in numbers and the main agencies are given in the figures beneath



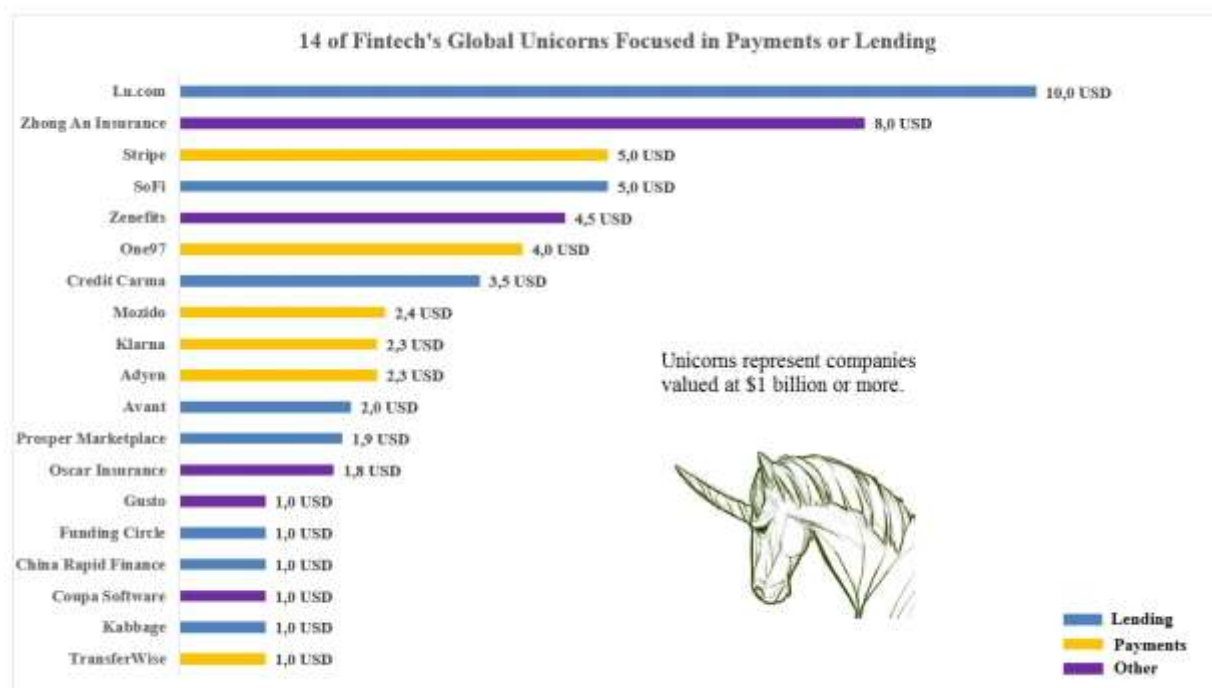
Number of Corporate Venture Vehicles (CVVs) globally between 2017 and 2021(Developed by using the writer primarily based on Ernst & Young, 2024

Investments can deeply have an effect on relationships and opposition between incumbents and Fintechs. In addition, they are vital for Open Innovation strategies applied in the Fintech space. Investors.

2.8 Business models

Fintech start-ups' fundamental distinguishing function is their progressive commercial enterprise fashions leveraging superior technology. By doing so, they put off intermediaries in the monetary system, focal point on their principal targets with their lean and agile organizations, decrease charges with applied sciences such as blockchain and cloud infrastructure and decorate person trip and investigate it with complicated massive statistics and complicated algorithms. Developments

in Fintech house embody each start-up which is centered on unique areas and mounted e-commerce and science corporations According to Douglas, the success of these corporations is established on combining modern-day science skills and flexibility in altering legal guidelines and regulations. Success elements of businesses count on their low earnings margin, asset-light, scalable, revolutionary, and compliance handy commercial enterprise models. Most of the Fintech start-ups are backed by way of the possibilities in online enterprise in phrases of scalability. Moreover, the explosion in smartphone utilization and improvements in cellular technological know-how are the major foundations of success in the Fintech movement.



Fintech's international unicorns targeted in repayments or lending (Developed by means of the creator based totally on KPMG

Payments

The payments quarter was once viewed as a steady enterprise for decades. Parties such as acquirers, and issuers had well-defined roles and commercial enterprise fashions have been pretty profitable. This state of affairs started out to alternate with the improvements in finance and the emergence of new entrants, more than a few new options had been developed for repayment offerings in parallel with Microsoft's strive to collect Intuit. In the early 2000s, cellular offerings grew to be extra of an issue. However, many of the new offerings failed in this duration). Afterward, a 2d wave took the region with the emergence of new entrants after the financial downturn in Customer needs and the stance of legislators precipitated disruptions in the repayments area .

Some Fintech Companies in Payment Space

Most of the leading companies in the payments space build their solutions on the developments of mobile technology. The largest companies in this space are technology and e-commerce giants (Chishti and Barberis, 2021). Apple is a technology giant which triggered the explosion in mobile payments with the introduction of Apple Pay (Kim et al., 2020). On the other hand, e-commerce giant Alibaba dominates internet payments in China with Alipay. In addition to the opportunities in online payments, the potential of unbanked customers is still huge.

Apple Pay

It is a mobile payment system enabling users to utilize their phone as a contactless payment device. Only in its first three days, one million users activated the application. The technology lying behind is NFC contactless card payment technology. An internal NFC antenna is integrated into iPhone 6. Users verify their identity via the Touch ID fingerprint scanner on the phone. In addition, many cards can be registered to the user's phone. No sensitive information and card data is saved on the phone or Apple's servers. A one-time Device Account Number is provided by the payment network or issuer bank when the transaction is done. This code can't be traced back to a real account. In this respect, identification with fingerprint and secure architecture features gives an important advantage to the company among its rivals in the payments area. Apple Pay has some important rivals such as Google Wallet. However, Apple Pay's some important features such as using tokenization not storing card data, and owning and controlling its own SE (Secure Element, a generic name for protected memory on a smart card) make it simpler. In addition, 83% of financial institutions in the US have already integrated into Apple Pay.

Alibaba and Alipay

Alibaba started in China through Alibaba.com in 1999 as a B2B e-commerce platform. Subsequently, the company expanded to the B2C market and became an internet giant on such short notice. In 2020, it raised a jaw-dropping \$25 billion at its Initial Public Offering on the New York Stock Exchange. The company founded its payment service, Alipay, to issue trust between buyers and sellers. Even though the restrictions were imposed on foreign ownership in relation to payment systems in China in 2019, the official owner of Alipay, Ant Financial Services Group, fetch a valuation of US\$ 50 billion. The service became the world's fourth largest money market fund in just a massive network of customers and merchants of the service is the backbone of its success. This enables the company to structure a business model with low cost and low margin levels from its inception. For instance, in Taobao.com (a subsidiary of Alibaba of e-commerce), any setup or transaction fees are not charged to merchants and customers. The revenue model is based on advertisements and other merchant services. Moreover, customers can order takeaways, buy insurance, online music or plane tickets and pay utility bills by using the service.

Crowd funding

It is viable to make use of the web for gathering small quantities of funding from a giant variety of humans in particular for specific projects. Moreover, crowdfunding campaigns provide the probability to set the fundraising duration and cancel the campaign, if a focused quantity of cash isn't collected.

Open banking

Application Programming Interface (API) consists of features and strategies which permit get admission to facts or carriers for bettering the performance of the application. It can set the performance of statistics or providers in these applications. Fingleton Associates file in autumn 2014, which used to be posted alongside HM Treasury's Autumn Budget Statement recommends banks create standardized APIs which are available to third events (FinTechs and developers) for enhancing opposition (Payments UK, 2015). According to Group Chief Technology Officer at UBS, Stephan Murer, APIs provide new possibilities for banks in order to attain new clients and hire new services.

Digital Banking

Online and Mobile Banking

The digital revolution is altering banking deeply as properly as different components of life. Innovations revolve around smartphones. It is estimated that 80% of bought units will be smartphones by using 2020. In this new environment, key regulations for retail banking are simplicity, relationship, visitors, and pace of innovation. Banks must provide simple,

visible, and straightforward merchandise whilst reinforcing client relationships thru social media. Web and software visitors grew to become a most important subject whilst they are catching up with fast-paced improvements such as clever watches and glasses. In this sense, banks ought to make bigger their flexibility to changes. Client centricity, Open Innovation, and organizational flexibility grew to be greater trouble for adopting digital banking in incumbent organizations.

Blockchain

Blockchain science and its most famous software Bitcoin keep awesome workable each for monetary offerings and non-financial services. Bitcoin can be used as a special kind of foreign money with its open-source and decentralized features. Blockchain science permits any variety of assets to be transferred electronically. Moreover, it allows music and affirms a digital change in near-real time. In this sense, there are many unique software areas. For instance, human beings are the usage of Bitcoin to avert the government's restrictions on receiving repayments from overseas. The biggest potentials of Blockchain are respectively viewed as keeping anonymity in the online price process, a medium trade in the creating countries, sending remittances, making online repayments and monetary investments. Current inefficiencies in B2B repayments and P2P remittances stoke the demand for the usage of blockchain in the repayments field. It additionally presents many blessings for settling stocks. In this sense, Nasdaq Private Markets is enforcing blockchain science considering the fact that 2020 and searching at the methods to use it in its pre-IPO buying and selling arm. Regarding asset and collateral management, inefficiencies and fraud tries can be decreased by using traceability points of blockchain technology. blockchain applied sciences serve in the financial, logistics, and compliance sectors.

Other Sectors

There are additionally many different software areas for Fintech start-ups. These fields contain insurance, private investment, overseas exchanges, and actual estate. In this sense, commercial enterprise improvements have an effect on and radically change these sectors profoundly. For instance, data-based fashions grew to be a greater issue. There are some groups that gather information with their gadget positioned into motors and present pay-per-mile auto insurance plans whilst the system measures facts about using habits of the coverage holder. It is estimated that 50 billion objects will be linked to the net by way of 2020. That makes analysis of massive records necessary for higher insurance plan insurance policies and different services. For comparable purposes, science businesses such as Google, Facebook, and Amazon accumulate huge records associated with consumer habits.

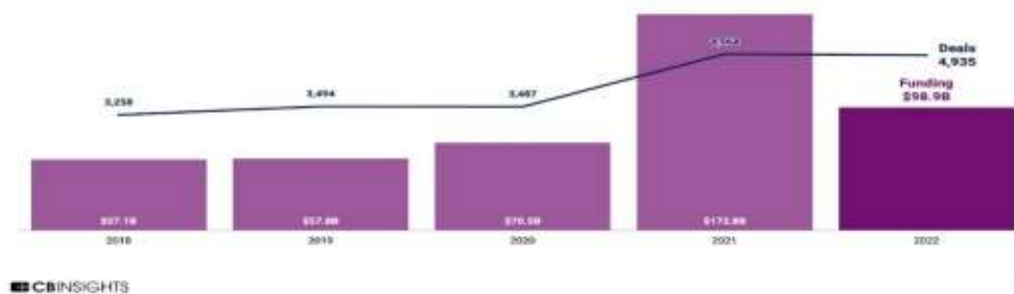
2.9 Technology Acquisition and Collaboration

This quantity holds magnificently manageable and fascinates heaps of new Fintech start-ups. They can be each partner and competitor for usual corporations in many offerings which include payments, funding, and wealth management. Both events require every other's collaboration in order to take advantage of new possibilities in the market. An exclusive factor of view can shed some mild on this issue. A well-known Russian scientist, Peter Kropotkin, who contributed to Darwin's idea for evolutionary There are many variations of Fintech start-ups from typical banks and insurers in phrases of their objectives, enterprise model, organization, methods, and technology. While incumbent finance establishments appreciably attempt to optimize corporations as common and they have monstrous rules burdens, Fintech start-ups disrupt the present merchandise and offerings with consumer ride as a key driver and focal point on one single factor in these services. In addition, they regard intermediation as a key aspect and extract fees from facts greater than the merchandise in their enterprise models. In distinction to giant companies of huge gamers in the market, Fintech start-ups minimize operation charges and amplify effectivity with their mild and lean organizations. In addition, their quick improvement cycles and time to market attract normal agencies to work with them given that many stakeholders are worried about each step of the selection technique of common organizations. Lastly, whilst Fintech start-ups make use of the advantages of developing technology, regular businesses are dealing with various enterprise traces and legacy burdens In addition to innovation

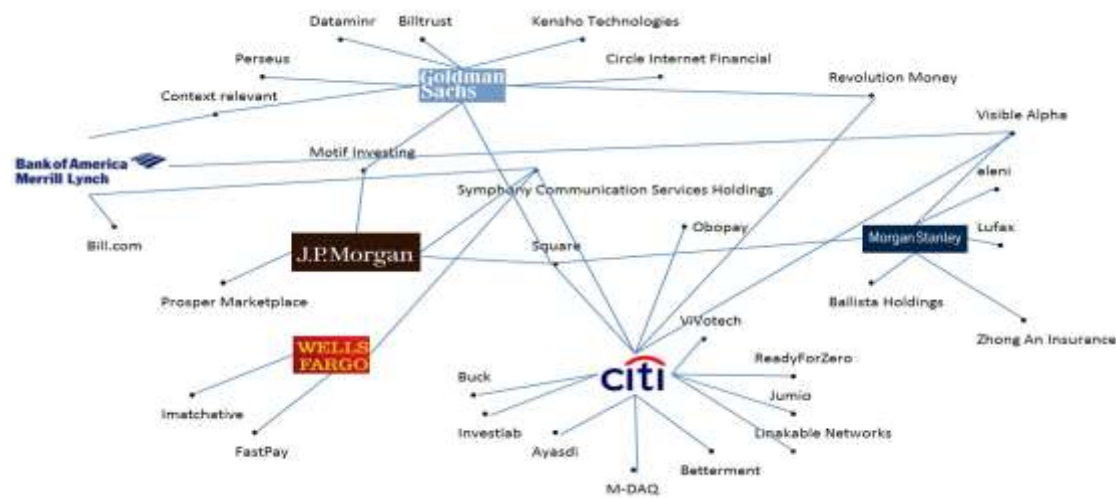
labs, many giant establishments opt for to construct non-public equities and task capital fund vehicles. Hundreds of tens of millions of bucks had been raised via promising Fintech start-ups in current years. This is the strongest signal of how banks supply significance to new applied sciences and commercial enterprise fashions provided by way of Fintech start-ups. For instance, BBVA and Sberbank launched \$100 million dollars to make investments in Fintech start-ups in the latest years big firms in banking or different industries accumulate technological know-how companies.

State of CVC | Global Trends | Investment Trends

Global CVC-backed funding drops 43%, deals tick down YoY



Annual global Fintech financing trend



Major American banks' Fintech funding map between 2020 and 2022 (Developed by means of the writer based totally on Chappuis Halder

In North America, Fintech investments reached \$7.67 billion through 378 offers in 2015. The most energetic undertaking capital investor in North America is Andreessen Horowitz. It is accompanied by SV Angel, five hundred startups, and Google Ventures. In this sense, FinTech ch environment attracts non-financial offerings companies such as Google, Intel and

The quantity of funding to VC-backed reached \$4.5 billion throughout a hundred thirty deals. The most energetic VC traders in Asia are Accel Partners, East Ventures, and Sequoia Capital China \$1.48 billion in a hundred twenty-five offers have been raised by way of VC-backed Fintech corporations in Europe in 2020and deal exercise rose by 30% on a year-over-year basis. Only in the UK, sixty-one offers have been made. Most lively VC buyers are Index Ventures, Balderston digital banking funding improved greater than ten-fold when you consider 2020 and reached \$6.9 billion in 2021. Personal

digital banking start-ups which Among the insurance plan companies, AXA is a pioneer in spreading a digital and innovative attitude throughout their organization. Between 2020 and 2021 they invested 950 million EUR in digital projects. They have invested 200 million EUR without delay into innovation via AXA Strategic Ventures for the areas together with insurance, savings, banking, fitness, and asset management. Fund Shop, Particle, Widmer, Flier, and Climate Secure are some of their investments. They constructed digital partnerships with Facebook, Google, LinkedIn and Ballecer. They join with new entrepreneurs via Axe Labs in California and Shanghai. While AXA digital academy helps all personnel for accelerating the digitalization of their businesses.

2.10 Policy and regulation

Importance of regulation

Regulations form innovation and finance in phrases of market entry, opposition policy, monopoly, and pricing (Liu et al., 2021). When it comes to banking or finance, it is not possible to rule out policies and legislation. There is no doubt that besides compliance and regulations, economic markets would be chaotic and greater unstable. Organizations ought to include these regulations as a substitute for making an attempt to ignore them places ahead that stricter guidelines might also have poor consequences for innovation. On the different hand, regulators provide significance to the relationship between improvements and patron welfare. The foremost reason for guidelines is making sure stability, effectiveness, and protection in the market by using mitigating feasible poor consequences of the regulations

Effect of Economic Crises in 2020 to Regulations

Many new legislations and policies enter into pressure after misspelling of sub-prime mortgage-back securities which brought about the monetary crises in 2020. Post-crisis economic reforms trade the methods how monetary establishments function and form the markets (Arner et al., 2024). Moreover, economic scandals didn't come to a quit and they emerged as new ones such as the Libor pastime charge manipulation scandal which resulted in questioning the moral thing of the economic world.

Regtech (Regulatory Technology)

Regtech time period used to be promoted after the emergence of Fintech. It refers to the use of science for regulatory monitoring, compliance and reporting. It is the marriage of science and regulations. It presents big value financial savings each for economic establishments and regulators. It has a long way greater plausible such as non-stop and real-time monitoring.

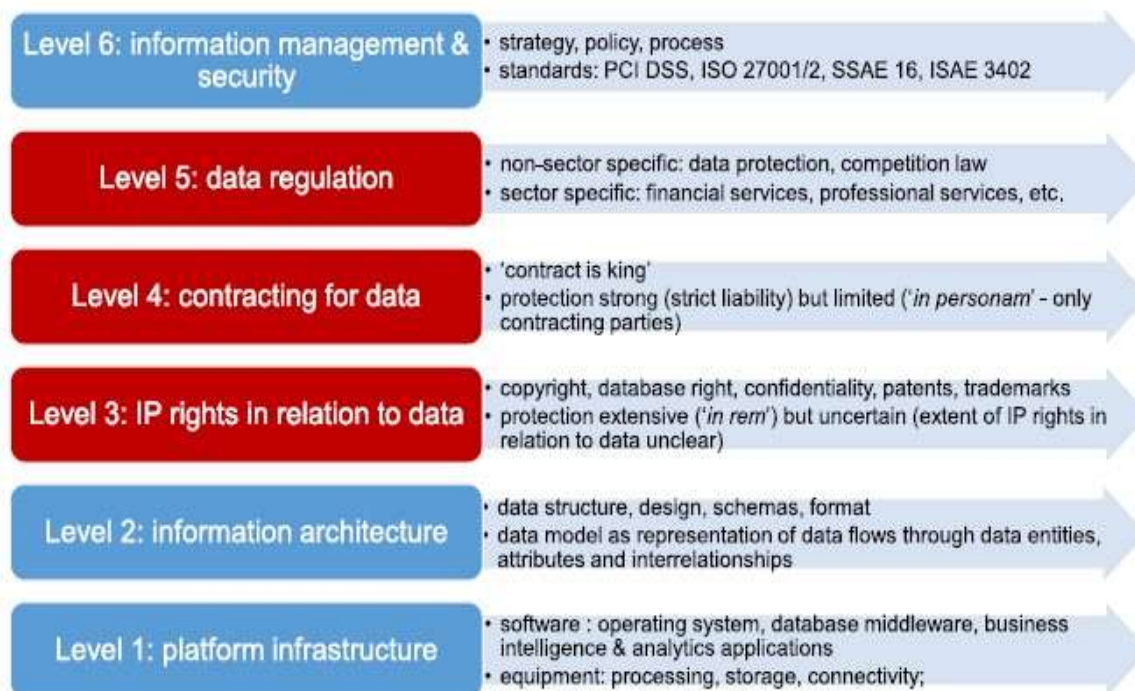
Payment service directed (PSD)

Payment Services Directive (PSD) II is the revised directive on charge offerings and is administered through European Commission. Its important desires are enhancing fee offerings and bettering e-commerce in the EU. It got here into pressure in January 2021 and it has to be transposed into countrywide legal guidelines by using all member states by using January 2022. It used to be enacted with appreciation to the altering surroundings and boom in online payments. It expands the time period of "payment services" as "payment initiation services" and "account records services financial establishments need to pay PSD II greater interest than different regulations. The tendencies in technology, the emergence of new fee provider carriers which "disintermediate" banks, and the trade in patron behaviors.

Regulation Regarding Big data

Financial offerings are one of the most data-intensive industries. Especially, buying and selling systems revolve round huge data. Analysing large statistics is indispensable for success in economic services. Markets in Financial Instruments Directive (MiFID) II regulates monetary instrument buying and selling regime in the EU. A 2nd enterprise that is data-intensive after banking enterprise is the insurance plan sector. Big statistics is being used to examine the danger extra

exactly and calculate coverage costs greater accurately. New methods for amassing and examining information are extraordinarily beneficial for the enterprise.



Regulations Regarding Blockchain and Crowdfunding

There are new policies for many things to do based totally on Fintech neighborhood such as blockchains, crowdfunding, shadow banking and payments. These jurisdictions entail distinct attendance and there are many uncertainties round them. In phrases of crowdfunding, incumbent monetary gadget focuses on just three – 5% of populace as accepted investors. However, many nations are fostering non-accredited buyers to make investments in corporations via crowdfunding portals. For instance, Canada provides an exemption known as “offering memorandum” for buyers over the age of 18. On the different hand, the chief us of a in crowdfunding is USA. Jobs Act Title III and The US Securities and Exchange Commission (SEC) simply regulates the crowdfunding market in USA. Title III permits non-accredited traders to make investments minimal two USD up to a most of 10% of their earnings or property in agencies that are elevating up to \$1 million in funds. In the mild of this new regulation, there are now a possibility of 233.7 million new buyers in the United States

The Bitcoin Association is one of the main non-profit Bitcoin organizations. It organizes management occasions and focal point businesses to make a contribution to Bitcoin technological know On the different hand, there are many uncertainties in regulating things to do of blockchain applications.

Regulations in Different Countries

London is recognised as the capital of Fintech with admiration to its funding flow. A profitable prison framework, intensive infrastructure, a verifiable tax machine and a funding guide are the main elements at the back of the UK's successful Open Application Programming Interface (API) Initiative was once started out in. The main intention of the initiative is to raise opposition of incumbent monetary establishments and Fintech organizations for open banking functions by using presenting the groundwork for API surroundings More modern offerings with decreased prices are carried out with the aid of permitting customers and SMEs to get the right of entry to Countries with higher Fintech insurance policies make a bounce in this environment. According to their Fintech policies, the most profitable areas in the world are the UK, Singapore, Australia, Hong Kong, Germany, California, and New York respectively. The most

influential elements concerning Fintech insurance policies are regulatory regimes that facilitate the participation of new entrants with new commercial enterprise fashions and authorities Project Innovate exemplifies an amazing initiative in phrases of a profitable regulatory regime. It is supported with the aid of the Financial Conduct Authority (FCA) in the UK and consists of a Regulatory Sandbox for agencies to take a look at new fashions with an exemption from trendy regulations. On the different hand, Australian Prudential Regulation Authority (APRA) and Australian Securities and Investments Commission (ASIC) increase two While Innovation) helps new Fintechs to navigate ASIC's regulatory system, Digital Finance Advisory Committee allows the engagement of Fintechs and revolutionary agencies with ASIC extra broadly. In Singapore, Fintech and Innovation Group (FTIG) (2020) underpins improvement techniques and regulations.

3.METHODOLOGY

The methodology chapter has extraordinary significance involving the best of the lookup and the credibility of the findings. Research design, lookup method, and series and evaluation techniques of facts have profound outcomes on the reliability and validity of the findings.

This chapter is divided into two subchapters as "Research Design" and "Data Collection and Analysis". While "Research Design" offers data about the lookup methodology, "Data Collection and Analysis" handles facts sources, how they are analysed, and fine of data.

3.1 RESEARCH DESIGN

This lookup addresses Fintech house in an overarching manner from Open Innovation perspective. This requires a deep appreciation for the latest happenings in the field. Fintech surroundings entails two kinds of essential actors as incumbents and start-ups. On each sides, traits and happenings consist a variety of fields such as banking, payments, lending, investments, accelerators and science providers. There is a want to investigate the trends and happenings from one-of-a-kind views Moreover, it is necessary to talk about these traits with the specialists from extraordinary fields.

In this respect, major lookup query is:

RQ: What are the underlying drivers at the back of Fintech improvement and opportunities, threats, dangers and challenges in Fintech area from an Open Innovation perspective?

In order to facilitate answering this question, it is divided into 5 lookup questions. These questions are given in the desk under with their goals and lookup and facts series methods.

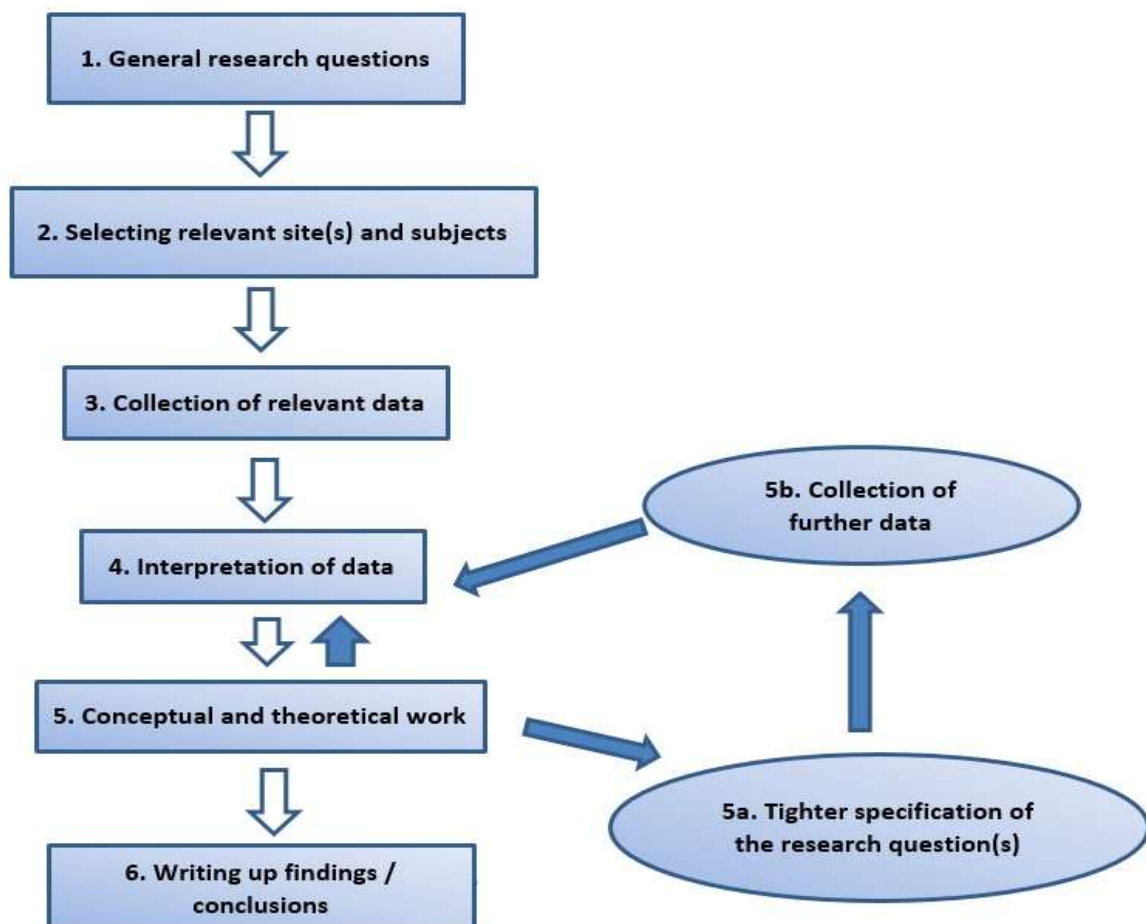
3.2 RESEARCH METHODOLOGY

Financial technology, or "fintech," refers to the use of technology to improve and automate financial services. Fintech has had a significant impact on the financial services industry, affecting everything from payment processing to investment management. In many ways, fintech has disrupted traditional financial institutions, forcing them to adapt to changing consumer demands and technological advancements. In mythology, the concept of change and disruption is often associated with the archetype of the trickster. The trickster is a figure who embodies the spirit of change, transformation, and innovation. In many myths, the trickster is portrayed as a mischievous character who disrupts the status quo and challenges authority. This archetype can be seen as a parallel to the impact of fintech on the financial services industry. One example of fintech's impact on financial services can be seen in the rise of mobile payments. Mobile payments have made it easier for consumers to pay for goods and services without the need for physical cash or credit cards. This has led to a shift in the way that financial institutions handle payments, as traditional payment methods are being phased out in favor of more modern and convenient options. Another example of fintech's impact can be seen in the rise of robo-advisors. Robo-advisors use algorithms to manage investment portfolios, making it easier and more affordable for consumers to invest their money. This has disrupted the traditional investment management industry, which has

traditionally relied on human advisors to manage portfolios. In mythology, the archetype of the hero is often associated with innovation and progress.

Research Objectives	Research Questions	Research Methods	Data Collection Methods
To understand the triggers behind Fintech development	RQ1: What are the triggers behind Fintech development?	Qualitative research	Primary data: Semi-structured interviews
To understand role of Open Innovation in Fintech space	RQ2: What is the role of Open Innovation in Fintech space?		Secondary data:
To understand advantages and disadvantages of incumbents and Fintechs	RQ3: What are the advantages and disadvantages of Fintechs and incumbents?		Consulting company reports
To understand the opportunities and threats in Fintech space	RQ4: What are the opportunities and threats in Fintech space?		Economic organizations' reports
To understand the risks and challenges in Fintech space	RQ5: What are the risks and challenges in Fintech space?		Company websites

Research technique is a method which specifies how facts is collected. Different contraptions such as surveys, semi-structured interviews can be used in one of a kind techniques (Bryman and Bell, 2021) Qualitative lookup approach is widely used in enterprise research in addition to quantitative and combined methods. It emphasizes phrases rather than ofthanuantification and qualitative researchers don't follow size (Bryman and Bell, 2020). In distinction to quantitative research, it focuses on grasping social relationships thru interpretation.

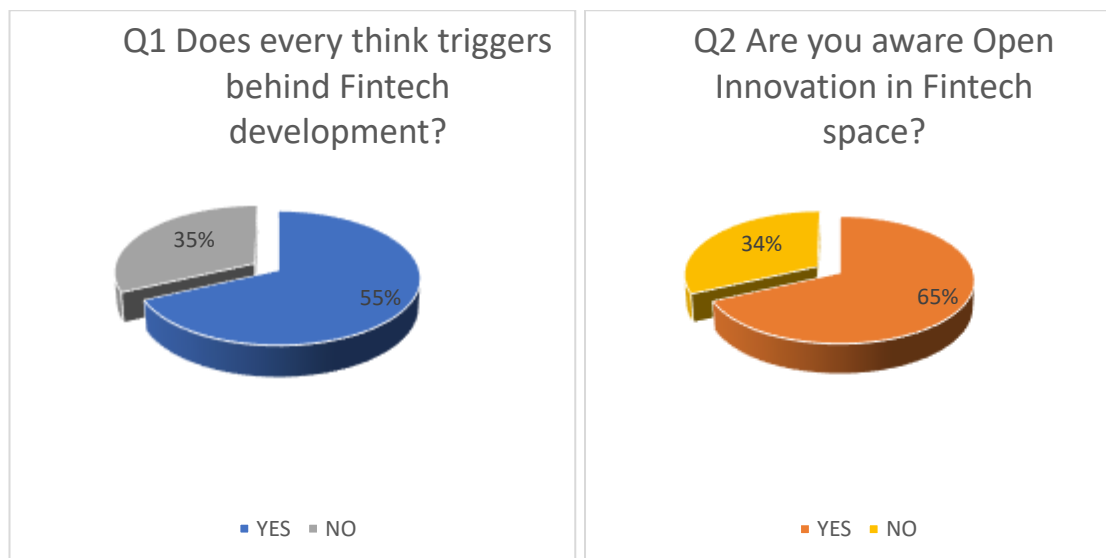


Qualitative lookup extensively displays an inductive method It is additionally acknowledged as inductive reasoning. This strategy begins with observations and the theories which are constructed with recognize to these observations in the cease In addition, it is iterative. The researcher can replace the concept and lookup questions with recognize to new records This A qualitative lookup graph in an inductive way is utilized in this research. No assumptions and speculation are finished in the starting in accordance with an inductive reasoning strategy. It is required to apprehend the Fintech house from the standpoint of interviewees earlier than constructing theories. There are searchertargets to construct a framework after conducting interviews.

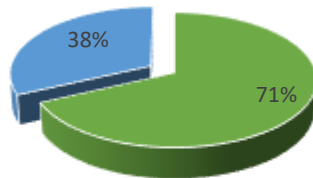
3.3 Data Collection

Research units are equipment such as semi-structured interviews or questionnaires. Semi-structured interview refers to an interview such as a sequence of questions, however, the interviewer can add or subtract questions or trade their sequences. The interviewer can ask in additional questions with admiration to the solutions of the respondent. Semi-structured interviews additionally allow researchers to tackle subjects with pretty clear focal point In latest years, there is a make bigger in a wide variety of computer-assisted interviews. There are two primary sorts as computer-assisted non-public interviewing (CAPI) and Primary information is gathered from semi-structured interviews. It is required to add and subtract some questions in the interview information in accordance with the knowledge of the respondents. In addition, it is essential to supply freedom to respondents to obtain in-depth solutions involving particular comments. It may additionally entail for the researcher to ask extra questions. Respondent may additionally favor sharing his/her ride in a particular area and it is tough to manipulate it earlier than the interview. In order to attain most recommended information, there is a want for a dynamic mindset in asking questions Therefore, semi-structured interviews with open-ended questions is a fine technique to use An interview guide used to be organized earlier than conducting the interviews. While some questions had been requested to all the respondents. Some questions have been subtracted or introduced in accordance to the area and understanding of the respondent. Providing a replica of the interview information can support the dependability of the lookup of Interview information used to be shared with the respondents who demanded it. Interview information Peer-reviewed articles, books, monetary organizations' reports, consulting employer reviews, and corporation websites are secondary facts resources. Most of the secondary facts are received from peer-reviewed articles. Books that have been written by eminent pupils on the subject of lookup are chosen. Economic organizations' reviews consist of reviews that have been written through financial businesses like European Commission. In addition, consulting organization reviews are chosen from worldwide acknowledged consulting groups with excessive reputations. They supply really useful facts, especially in market figures.

3.4 Data Analysis

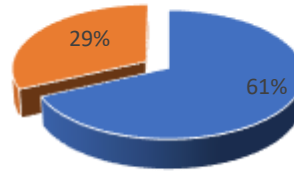


Q3 Do you think aware of advantages and disadvantages of Fintechs and incumbents?



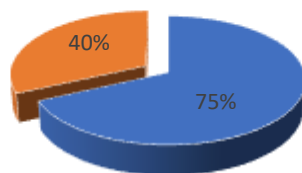
■ YES ■ NO

Q4 Do you think opportunities and threats in Fintech space?:



■ YES ■ NO

Q5 why do you risks and challenges in Fintech space?



■ YES ■ NO

(1) RESULTS

The results chapter entails many subchapters in accordance with lookup questions. It consists of respectively Triggers of Fintech Development Role of Open Innovation in Fintech Space Advantages and Disadvantages of FinTech's and Incumbents Opportunities and Threats in Fintech Space and Risks and Challenges in Fintech Space.

4.1 Triggers of Fintech Development

Crises and Loss of Consumer Trust

According to Respondent α from a funding administration company, crises are no longer anomalies in the economic sector, however, they are the realities of the system. Respondents suppose that each 5 to 10 years, all people forget that there is a crisis each and every 5 to 10 years. These are now not anomalies. These are core factors of the monetary. Most of the different interviewees additionally agree with this fact. They say the modern state of affairs of the economic machine desires enhancement in the experience of enterprise methods, rules, and technology. This is one of the fundamental motives in the back of why indispensable adjustments are taking place in economic markets. In quick observation after

crises, modifications in relationships between incumbent economic establishments and their clients started to be observed. Loss of confidence is one of the essential motives in the back of it.. As greater and extra clients started to select these modern start-ups, for their economic needs, there is a growing hobby toward Fintech solutions. Banks started to lose their shares in the market due to client confidence decreasing, new offerings are Respondent : “This time there is a lot greater technological know-how and alternatives” Consumers commenced using economic offerings extra regularly by using the assistance of cell technologies. This multiplied the market and opened room for new improvements and new entrants. A respondent from a giant bank, Respondent, stated that purchasers confidence for science agencies such as Google, Facebook, and Amazon are some distance greater than the purchaser have faith in incumbent organizations. He additionally delivered that these organizations grew to become inseparable components of our lives due to the explosion in cellular applied sciences and social networks. It is no shock for science agencies and Fintech start-ups to entice the brightest minds and bridge the hole in the market in their “The outdoor 1/3 celebration companies all of an unexpected had a higher image. They have been smaller, they had been younger, however, they are regarded so tons higher in the eyes of the clients. This is the trick. This is why it is a distinct model.

Change in Business Models of Technology Vendors

One interviewee from the UK Fintech industry, Respondent γ , referred that economic establishments have been constantly certain to ICT companies, however, the relationship between technological know-how carriers and stop customers has modified after 2020

Respondent: “Technology companies, software program businesses, and different creative, smart, successful technological know-how organizations modified their conduct and began to assume about giving their service, giving their know-how immediately to the cease clients .He additionally referred to that common agencies have constantly received pc software programs and hardware from outdoor vendors and the share of in-house technological know-how improvement is continually limited. They are nonetheless sure to science corporations in many aspects. He additionally declared that these technological know-how vendors by no means shared their options for monetary markets without delay with the cease customers between the late 50s and the world monetary crises in 2020. For instance, improvements such as ATMs and savings playing cards have been brought to stop customers thru intermediaries such as banking institutions. Afterward, this mannequin has been modified and science organizations started out to provide economic options at once to give up users. This is one of the major motives for mendacity in the back of the Fintech revolution.

Change in Demographics

Another fascinating exchange takes place in demographics. The new generation, additionally known as “Millennials”, have the inclination to decide on technological know-how organizations and Fintechs rather than incumbent organizations. One participant from a start-up, Respondent, declared that new technology doesn’t prefer to go to branches and deal with human beings for executing monetary services. They have an additional robust inclination in the direction of science businesses such as Google and Facebook. Respondent permitted this by pronouncing that these human beings don’t choose to use banks and different common banking establishments as an alternative to Facebook’s cash switch: “they say if Facebook, Google or Square will supply me this service, there is no factor to go to branches. The cause mendacity in the back of this is they don’t want banks; they want to bank.”

Respondents additionally permitted that millennials supply significance to sharing financial systems as a substitute of shopping for new things. Respondent mentioned that many younger humans are graduating from universities with large mortgage burdens and this reasons a shift in purchaser habits closer to sharing current items as an alternative of eating new ones. The upward jab in vehicle-sharing offerings exemplifies properly this situation. He additionally introduced that this is a new concept for banks and they have to deliberate on new enterprise fashions to appeal to this new purchaser type. Another respondent from academia, Respondent permitted this and elaborated it with the examples of Uber and Airbnb. She additionally introduced that these humans are additionally fascinated in investing in neighborhood economic systems instead than investing in a fund which is managed by using an organization in another continent. The motive in the back is developing a neighborhood influence whilst performing global Respondent “There is additionally a fashion toward sharing financial systems with Uber, Airbnb, and all that, so it is no longer a shock that human beings

are additionally eager on investing without delay locally. For example, if you choose to make investments in your money, every now and then you don't desire to make investments in a fund that is managed via the US and investing in Asia. Maybe you prefer to have a neighborhood influence and you desire to recognize that anything your funding will make contributions and guide the neighborhood economy, the regional financial system, and matters like that." On the different hand, Respondent α noted that most of the millennials are so younger to be rich and pressure massive establishments to trade their commercial enterprise fashions for them.

4.2 Role of Open Innovation in Fintech Space

Compete of Collaborate

There is a debate among massive establishments for positioning their techniques in the Fintech space. In this regard, the query is whether or not these agencies have to compete with Fintechs or collaborate with them. An interviewee from a British start-up, Respondent, who is additionally a writer of an e-book in the Fintech field, declared that this query was once significant in 2021, however, now there is no desire for giant establishments without collaboration. She additionally brought up that opposition is now not assisting them on the grounds that Fintechs are quicker and greater innovative. On the different hand, Respondent mentioned that Fintechs are additionally certain to collaborate because humans are retaining their deposits in the banks eventually. Respondent places ahead that corporations likes of Square extend the wide variety of savings card transactions in the market and make contributions to market growth. Although their commercial enterprise fashions are threatening banks, banks will make bigger their revenues from credit score card transactions at the cease of the day. Respondent mentioned that the requirements in banking or any different discipline will stay the same. People will constantly want repayments and different core functions. Moreover, clients will be the same. The solely alternate delivered via Fintechs is occurring in the methods and the strategies for executing these transactions. They create methods such as 7/24 connectivity, cellular payments, cashless Respondent "People will continually want to pay, usually want to do transactions, so the core characteristic of the economic carrier when it comes to repayments or lending or doing every day commercial enterprise is going to be the same. The factor is that how do you make positive that you use the science to exchange the way, the wants are being blanketed and addressed. And how do you create now not solely new needs, but how you create methods for giving options to the purchaser such as 7/24 connectivity, on-line payments, cellular payments, cashless transactions, decreased prices potentially, and quicker transactions? How corporations such as well-known peer-to-peer (P2P) lending groups declare that they are separate from typical channels, however, they elevate the large quantities of investments from ordinary companies at an equal time. They are by hook or by crook nonetheless related to the normal sector. In this respect, the position isn't occurring in a pure way and collaboration is a win-win method for each party.

Open Innovation Methods in Fintech Space

There are unique Open Innovation techniques for giant establishments to interact with Fintechs. According to Respondent, first one is acquisition of Fintech companies. Incumbent companies pick early-stage acquisitions for most return and decrease costs. Respondent cited that incumbents choose acquisitions if the product can without problems be utilized to incumbent's current model. Respondent cited that BBVA's acquisition of Simple Bank exemplifies nicely a whole acquisition of client layer. Second choice is investing to start-ups. Many giant agencies installed their mission capital cash for this purpose. Respondent declared that incumbents decide upon this mannequin if the success is extra about Fintech's commercial enterprise mannequin as a substitute of the product. Similar to the acquisitions, they additionally pick early-stage investments for Fintech start-ups. They strive to discover right possibilities at very early tiers for most returns. Different agencies can also be investing the identical enterprise at the identical time. Another choice is partnerships and alliances. According to Respondent JP Morgan Chase's deal with On Deck Capital for offering credit score traces is a properly instance for constructing partnerships. JP Morgan is nevertheless hiring data scientists and selection scientists to enhance their in-house capabilities. He mentioned that three pillars of their That's about alliances which assist start-ups

develop and assist us to grow. They are greater like a companion to financial institution than competing with the bank”.: “We are no longer approaching with an acquisition factor of view due to the fact managing innovation in massive agencies is very difficult. Innovations are very properly managed when they are left to innovators. Innovators want that kind of freedom and free minded thinking. Large businesses Incumbents are web hosting Fintechs and assisting them to develop thru incubators, accelerators, innovation labs and hackathons. It provides many benefits to Fintechs as properly as incumbents. They are recommended for Fintechs to recognize massive organization’s problems, exhibit themselves and get the trade to collaborate with them. In addition, they acquire mentorship. Respondent: “We have been in the application for three months. We had companions of the software like MasterCard, PwC and Amazon. That variety of groups have been helping the program. During the program, we had workplace area with exclusive start-ups from distinctive segments. We had mentors coming from these organizations. They had been coming and we had been having conferences with them. They have been fixing our enterprise problems. They had been additionally gatekeepers who are letting us to enter their organizations.

4.3 Opportunities and Threats in Fintech Space

Strategies of Fintechs

Respondents agree that there are three foremost techniques of Fintechs. Firstly, some of them fill the gaps in areas of interest segments that banks are reluctant to. According to the Respondent offerings of M-Pesa in Africa exemplify properly this model. Opening branches and giving economic offerings in many international locations is a way from being worthwhile for regular banking institutions. In this respect, cellular fee offerings of M-Pesa, which is a subsidiary of British telecom enterprise Vodafone, attain hundreds of thousands of underbanked clients in Africa. Secondly, some Fintechs provide monetary offerings overlapping with the offerings of incumbent organizations. For instance, challenger banks such as Atom Bank are direct rivals to normal banking establishments and they are giving these offerings in a greater fee-positive way. One respondent from the UK, Respondent referred to the modern-day advertising and marketing campaign of TransferWise which claims that they are transferring cash quicker and less expensive than banks and advises clients no longer to use banks for cash transfers and remittances. Lastly, some Fintechs are no longer working with stop customers and they are giving offerings solely to monetary institutions. Most of them are bettering the technological know-how competencies of standard corporations by way of enforcing new options such as huge records analyses with superior algorithms and synthetic intelligence. Respondent referred to the offerings of Duco, a British company leveraging synthetic Genius and superior algorithms to control large data. He additionally introduced that most of the banking establishments are nevertheless dealing with lots of Excel sheets and doing guide work to control consumer data. One participant from a giant bank, Respondent ψ , referred to Fintechs which are competing with banks and are focusing on the most worthwhile offerings delivered with the aid of banking institutions. He brought that banks to provide around 500-600 offerings and very few of them such as repayments and lending are attracting new entrants. He additionally claimed that due to the robust opposition in the market, some banks may lose revenues up to 50% of the whole in the brief run if they won’t undertake new channels such as digital and cell banking.

4.4 Regulations

Regulation Banking an a Service and API economy

A respondent who invested in many specific applied sciences so some distance mentioned that science is prepared to disrupt the economic markets and it is feasible to control it to go to the mainstream. The most vital component for disruption is regulations. According to a respondent from a giant banking institution, Respondent, banks, and different incumbent groups loved an unfair gain via policies so far. Respondent “Now the banking in commerce loved an unfair benefit for so many years. The unfair benefit was once known as regulatory modes. “However, this scenario has been altered with the new legal guidelines and rules such as PSD II. New policies incite adjustments in the markets in order to amplify opposition between incumbent agencies and Fintechs. This can create honest competition. All nations which

strongly assist Fintech improvements such as UK and Singapore are enacting new legal guidelines and regulations. Respondents agree that these rules pressure normal businesses to be greater open to 0.33 celebration carriers and Fintechs. This will virtually beautify collaboration. In this sense, PSD II forces banks to share purchaser account statistics with 0.33 parties. For instance, if a client concurs to share his/her account small print with Amazon whilst buying a book, Amazon will be capable to acquire the quantity of cash at once from the patron account at the financial institution and there will be no want to use bank's savings playing cards (Cortet et al., 2020). By doing so, 0.33 events will be greater aggressive in opposition to banks and banks must deliberate on new commercial enterprise models. Respondent "PSD II is very important. It will carry good-sized adjustments to the banking industry. It will convey new costs to customers. Customers will be in a position to select thru which 0.33 celebration I desire to get the right of entry to my account. Many groups from Respondent "I suppose the disruption that the PSD II brings on a European level, this 1/3 celebration get right of entry to money owed and the use of unique and a variety of APIs to clearly join the retailers and banks and this capability to consolidate account information." Respondents agree that this state of affairs will pressure banks to seriously change into open systems and "Banking as a Service" thinking comes into prominence. Respondent "You understand they say banks will be technological know-how corporations in the future. I definitely agree with it. Currently, there will be a new price provider directive, PSD II. It forces banks to grant their APIs to 0.33 birthday celebration providers. That capacity banks will come to be open platforms. This will assist them to apprehend their clients higher and create and enhance new merchandise better. Customers as properly they can have an account in a bank, however, they can pick different companies for specific offerings at the identical time. So it will provide clients with greater desire and manage their finances. It looks like a trend. We will see what will manifest in the quarter in the coming years." Respondent II gave Unified Payment Interface (UPI) in India as an instance for the API economy. He stated that his financial institution is working with 60 one-of-a-kind APIs and the machine presents seamless charge options consisting of Facebook integration in India in view. They will set up open systems which mix all these offerings and allow their clients to get admission to these offerings on a single platform. This approach has many benefits for all parties. On the banks' side, they will be in a position to collaborate with fintech's and get the right of entry to their higher science barring their direct competition. Secondly, they will provide these one-of-a-kind treasured offerings to their clients on a single platform. He additionally referred to that it will expand the best and fee of their services, and client satisfaction, loyalty, and faith will additionally increase.

4.5 Risks and Challenges in the Fintech Space

Risks in Regulations

There is a range of problems and challenges related to policies in the Fintech space. Technology and offerings exchange so quickly and it is pretty tough for legislators to recognize the advantages and viable abuses of these innovations. I assume in general; the policies continually are falling behind." cited that technological know-how and product emerge first and then create a market. Afterward, unfold of the use of the product creates a want for new regulations. In the legislative sense, the strategy of special nations ranges when it comes to enacting laws. Respondent α cited that whilst some nations such as UK and Singapore attempt to enact policies proactively to foster the increase in the economy, others may also act slower or select to study the wants and abuses for a longer time. cited that there is a developing debate around how rules will screen the traits in the Fintech zone and to what prolong incumbent corporations will preserve their protected place in the core tactics of intermediation. Participants from massive banks declare that there is an unfair opposition between Fintechs and incumbents in the market. Respondent claimed that some Fintechs delete money owed to some clients who are no longer worthwhile to them. He additionally introduced that banks will be difficult to pay the giant amount of costs in a comparable situation. One respondent from the US, Respondent, claimed that they ended a partnership with a well-known Fintech agency in the US when you considering that they had been doing unlawful things., those who have carried out commercial enterprise in the equal country mentioned that most of the Fintechs which act illegally don't entice the interest of the regulators until they attain vast growths. Then, officers begin questioning their operations and begin charging them.

The United Kingdom's Withdrawal from European Union

The UK's withdrawal from the EU is another trouble that threatens Fintech improvement specifically in Europe. The shocking end result of leaving the European Union brings many uncertainties each for the UK and EU involving the Fintech space. According to Respondent London is the assignment capital and monetary center of Europe, however, this is under threat with the contemporary referendum. Many groups are questioning relocating their headquarters to some other European city. Operating in a European Union member u. s. offers passporting rights for monetary organizations. This permits them to be approved for work their offerings in different European countries. If the UK WITH can't preserve its passporting rights after Brexit, these groups may also pass to different European counties to proceed with their offerings in the EU. Respondent: "However, the UK in reality wants to preserve its passporting rights after Brexit. This is very crucial. These rights allow monetary companies to get entry to different EU international locations to get extra authorization to function in these countries." additionally cited that Fintech unicorns such as TransferWise are being approached with the aid of different international locations such as Ireland and Switzerland to pass their headquarters to these countries. In this sense, different counties see Brexit as a possibility to appeal to businesses positioned in the UK and develop in the Fintech space. In addition, the rights of employees who got here to us from different European nations are no longer clear. They might also have to go away from the USA concerning work allow issues.

Doubts about Fintechs

Thousands of Fintech start-ups emerged after 2021. However, most of them failed. One respondent highlighted the significance of constructing an enterprise mannequin around a new technology. He additionally declared that few of the start-ups are providing actual cost in the Fintech space. On the different hand, many human beings are sceptical about the offerings of Fintechs in phrases of cyber security, statistics privacy, the safety of massive information, and mental property. In addition, screw-ups in Fintech houses such as stolen Bitcoins and the financial disaster of Mt. Gox, a bitcoin alternate in Tokyo, and contemporary scandals in P2P marketplaces stoke doubts about Fintechs. In this sense, Fintech start-ups ought to show themselves to reply to these reservations. marketplace lending businesses loved low activity prices dictated through central banks and this scenario contributed to their growth. Many human beings favored investing in these channels, however when Federal Reserve (FED) starts off evolving a hiking cycle, these agencies may additionally lose revenues.

Bubble and overvaluation

While many of the respondents point out that there might also be a bubble in the Fintech space, most of them agree that there is an overvaluation in the Fintech space.

5.CONCLUSIONS

This chapter affords solutions for lookup questions and precis of the findings. It additionally entails theoretical contribution, managerial implications and barriers of the lookup and in addition lookup implications.

5.1 GENERAL CONCLUSIONS

This lookup offers really useful facts to apprehend the Fintech area from an Open Innovation perspective. The findings can be treasury for many humans with special backgrounds.

It suggests that the most important triggers at the back of Fintech improvement are world economic crises in 2019 developments in technological know-how after 2021, in particular cellular technology, the minimize putative confidence for incumbents, and post-crises regulations. These findings exhibit that the Fintech concept will proceed to entice customers' and investors' interest and it will proceed to grow. Findings additionally exhibit that collaboration with Fintechs and adoption to new surroundings is a should for incumbents. If they omit Fintech fact, they may additionally lose their patron base and revenues. On the different hand, Fintechs are additionally certain to incumbents in many approaches including capital and consumer base. Incumbents and Fintechs possess specific benefits and disadvantages.

While abilities to strengthen new applied sciences and flexibility with much fewer burdens are the fundamental benefits of Fintechs, they require a patron base and extra capital. On the different hand, incumbent groups which possess these assets are struggling with their new applied sciences and regulatory burdens in addition to their historic mindsets. Collaboration has many advantages for each party. While Fintechs can expand the effectiveness of the markets and pleasant monetary offerings with their today's technologies, incumbents can assist them to attain integral resources. This can be a win-win strategy. On the different hand, many Fintechs threaten usual corporations in many ways. Incumbent corporations must embody new mindsets and organizational changes. There is a debate about whether or not incumbents have to alternate radically, or incrementally.

5.2 Theoretical contributions

There are eminent researchers working on the subject of Open Innovation methods' implementation in monetary services. Some of them are listed in the "Research Background" chapters. This lookup contributes to this area by using introducing a complementary learn about which aggregates comparative views each from the eyes of incumbent agencies and Fintechs concerning the triggers in the back of Fintech development, blessings and dangers of each party, Open Innovation techniques and their implementation in Fintech space, feasible opportunities, threats and dangers in the market. In addition, this learns about contributes to the preceding research which emphasizes the significance of open architectures in monetary services. Chesbrough (2019) highlights the use of systems in carrier structures. Fasnacht (2021) follows him by exemplifying the use of open systems in funding distribution in finance in the early 2000s. These examples tie into the aggregation of one-of-a-kind offerings from extraordinary events on a single platform. places ahead the suggestions of Open Financial Services Architecture (OFSA) in cell economic offerings and API integration. This thesis contributes to additionally this discipline by displaying the significance of the "Banking as a Service" idea for economic offerings and Open Innovation studies. This thesis introduces a new standpoint to Open Innovation research in economic offerings about the information in the Fintech area in an overarching manner through aggregating comparative specialist views each from incumbent and Fintech organizations.

5.3 Managerial Contributions

This find out about offers an overarching appreciation about the Fintech market. Readers each from Fintech and incumbent groups can locate it beneficial with admire to market issues, collaboration, Open Innovation strategies in the field, feasible opportunities, threats and dangers in the field. It can supply a beneficial aid for the humans who deliberate on how to determine the Fintech troubles in the market such as new technologies, emergence of entrants, threatening commercial enterprise models, feasible risks, collaboration techniques and Open Innovation techniques to gain from new environment. It can be beneficial for Fintechs and incumbents to apprehend every different better. This is quintessential for growing new techniques and adopting to the new environment.

5.4 Limitations

There are some obstacles that might also have an effect on the credibility of the research. Firstly, this lookup is primarily based on qualitative methods. There are some discussions involving the reliability and validity of qualitative methods. It can be stated that adopting exterior reliability and exterior validity is pretty tough for a qualitative lookup In addition, it is now not viable to enlarge inside reliability for this lookup considering the fact that there is solely one researcher. Some students convey that choice standards such as trustworthiness and authenticity are critical to consider the excellence of qualitative research. The second trouble may additionally be the scope of lookup objectives. The wide scope of this lookup makes it difficult to focal point on a single problem and tackle it in greater detail. Most of the interviewees had been reluctant to provide interviews greater than 1 hour. More interviewees would possibly be beneficial to make bigger the credibility of the findings. On the different hand, Guest et al. state that 12 interviews are ample concerning the saturation in qualitative research.

5.5 future implications

This lookup highlights the significance of “Banking as a Service” idea and seamless monetary services. New applied sciences and guidelines appear to form the markets for modifications in this way. It is clear that these fashions beautify collaboration, use of Open Innovation strategies and engagement in economic services. There is a clear want to make a lookup which focuses on “Banking as a Service” and seamless economic offerings with the aid of addressing additionally guidelines from an Open Innovation perspective. This lookup can be improved with extra interviews and this can expand the credibility of the findings. In addition, more than a few quantitative researches can be performed for the subchapters of this lookup along with Open Innovation strategies, new enterprise models, outcomes of Fintechs, the impact of regulations, cultural alternate in organizations, PSD II and Banking as a Service, seamless economic offerings and Open Innovation.

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