Fintech With An Approach Of Business Analyst

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Abstract: Fintech is constantly becoming the next big thing in finance and banking industry in India, thanks to increasing research by academicians and improvements by innovators. However, it is also becoming the center of attraction of regulators. Fintech is, broadly speaking, an umbrella term for innovative financial solutions and business models which consist of such services. Simply put, Fintech is an innovation that helps businesses to seek improvements in the delivery, process, and access to financial services. Several developing economies like India and China have already felt its impact over the years. It is a promising technology to transform legacy banking systems and clarify their age-old strategies, transform their work cultures, and develop new horizons. This research studies the potential of Fintech in existing economy and fills the gap in academic studies about business analysts’ approach towards Fintech. This article explains how Fintech can bring innovation in the obsolete banking system and positive impact on security issues.

Index Terms: Banking, Business Analyst, Fintech, Financial Technologies, Finance, India, Infrastructure

Introduction
With the evolution of cost-effective, faster, and user-friendly financial services, the term “FinTech” has become the buzzword in corporate journals and the financial sector. Several institutional and private investors have been using this term so deliberately, who have invested a whopping $50 billion or more in the financial sector (Accenture, 2015). FinTech or Financial Technology is the most debatable topic in the corporate world. FinTech is a technology aimed to make up for the inconvenience with traditional banking methods by making financial services accessible to the end users (David, 2017). It is an ever-growing industry which improves financial services with the use of the latest technology. Some of the common examples of FinTech are mobile banking, net banking, finance, investment, and cryptocurrency services provided to smartphone users. These technologies are here to make financial services easier for the common public. Both startups and existing financial organizations and tech firms have been using financial technology to enhance their reach (3). Considering the growth of this tech sector, cyber security has come out to be very important. With the increasing use of mobile devices, FinTech has become more user-friendly and cost-effective.

The monopoly of banks on some services and processes no longer exists as those facilities are now accessible by the general public. Lower operation costs, improved efficiency of financial institutions, and innovation have been a boon to finance companies. Financial information must be protected like PINs, passwords, account details, etc. Around 82% of financial institutions are showing interest in working with FinTech companies, according to the Global Fintech Report, 2017. However, inexperienced users are more vulnerable to security threats. It is one of the major issues related to cybersecurity in FinTech these days. Some of the common examples of online threats are targeted hacking attacks with claims to be from their financial institution or bank, phishing attacks, tricking users to download a malicious app, entering passwords in a fake website, or sharing sensitive data. As mediators, FinTech companies must keep the users aware of those threats and help them to implement best security measures to avoid scams (Zuckerman, Cybri). Some of the common examples of Financial Technology Business Model are banking services or mobile banking, Cryptocurrencies, and investment firms providing access to their services through digital platforms. Financial institutions, well-renowned technology leaders, and emerging FinTech companies are aimed to either beat traditional financial services or to enhance them. A lot of existing financial institutions provide FinTech solutions to develop and boost their offerings to stand out in competition (Peters, 2015). Hence, several financial technology businesses strive to improve their efficiency and provide a secure and convenient solution to the private and public companies as well as end consumers. Regulations and policymakers are known to protect everyone involved to promote the development of their services and financial innovation (Philippon, 2016).

The budding tech startups and entrepreneurs must make an important decision, i.e. to analyze the maturity of a market before making an entry. A market usually matures when both marketing and product strategies change. Maturity is when direct competition is active already. A product which solves a consumer issue that has’t been addressed earlier is called an “innovative product.” It is probably because the technology was not matured enough to be adopted in such a huge market or didn’t exist at all. With the launch of an innovative product, the market might be new because of one of these reasons – (a) the supply (category of the product) is entirely new or (b) target customers are still unaware about the solution. Customers (demand side) may not be prepared to buy yet. So, a tech startup must ensure that the technology is ready to be adopted easily and educate its target customers about its solutions. However, both ways are time-consuming. There are different challenges for an innovative product in the market, which are already created by competition.

Data-Driven Decision Making (DDDM) and Big Data analysis are the two most important trends in the financial industry. Many financial companies appoint Business Analysts to use data, metrics, and facts to help these organizations to make informed decisions according to their initiatives, goals and objectives. But the problem is that there is a huge amount of data and information to handle than ever before, especially during the past five years. Business analysts spend most of their time in converting data into an easy-to-read format, i.e. data munging. Volume, Variety, and Velocity are the three Vs that handle big data. Velocity consists of data transfer speed, Volume refers to the availability of a huge amount of data, and Variety has various formats and sources of data that is collected. This way, business analysts use real-time analytics to stay ahead of latest trends and trigger problems within minutes.
considering the huge demand for information. They implement real-time analytics in customer insights, fraud detection, and algo trading. Today’s executives don’t look behind every month or quarter. They follow and report daily changes to predict what might happen in the near future (Crosby, 2019). There are millions of bank branches and they rule the saturated market and they have literally gained customer’s faith and loyalty. In this day and age, customers are the king and their experience means a lot to the companies. This is where Financial Technology works. The FinTech firms have almost grabbed the whole finance and banking industry over the past few years, thanks to the adoption of smartphones and the internet. Money transfer, online payments, and end-to-end transactions have become the new normal. There are several advantages of FinTech over traditional banking systems in terms of personalized and enhanced user experience, improved functionality, better technology, and convenience. FinTech makes finance more accessible to the end users by all means (Razorpay, 2021). Considering the increasing rate of cyber threats all around, it is important to improve security over financial technology. In order to take control over all types of online security risks, the Indian Computer Emergency Response Team (CERT-In) is already doing well. But a specialized agency was still required by the administration to further enhance the security over financial transactions and protect consumers’ interest. Originally proposed by Late Mr. Arun Jaitley (former Finance Minister of India) in February 2017, CERT-Fin (Computer Emergency Response Team for Financial Sector) is especially dedicated to all the financial organizations in India. An apex body, Financial Stability and Development Council (FSDC) has implemented several measures to prevent cyber attacks in the financial industry. Chaired by the Finance Minister, the FSDC coordinates between several financial sector regulatory bodies. Some of its prominent members are the heads of PFRDA, RBI, SEBI, IRDA, and FMC, as well as the top bureaucrats (Jayaswal, 2020).

Literature Reviews

Aydamir Guliyev (2018) focuses on the impact of financial technologies on commercial banks. In the world of technological innovation where advancements are taking over more and more industries, the financial industry is no exception. The FinTech market seems to be more promising in today’s era. According to him, the latest financial technologies rely on two factors for their development – (1) growth of banking sectors (to introduce latest financial technologies in modern banking) and (2) rise of independent startups (to bring competition and break the monopoly of traditional banks. The research concludes that the behavior of banks relies on the capital volume in Portuguese market. Banks that have enough budgets are more likely to work with FinTech businesses in Portuguese market to bring more flexibility in the existing economic scenario. Tech and innovation companies can have a great reach in the financial market and they can provide better services to customers with added convenience and kill the competition with traditional banks.

According to Prof. Roberto Moro Visconti (2020), FinTech is a diverse technology industry aimed to improve the efficiency of financial services. FinTech has become a boon to the financial industry in the world. Thanks to FinTech, it is evolving frequently with favorable regulation, information technology, and shared economy. FinTech seems to be promising to redefine and change the financial industry by ensuring quality services, creating more value with a stable landscape, and cutting operational costs. The technological advances in the form of mobile applications and e-finance have brought innovation in financial firms by combining social media, AI, big data analysis, and e-finance after the global recession in 2008. FinTech companies have been serving both existing firms and startups through their hybrid business model. They deploy their technological skills and expertise in banking and finance industries.

Anne-Laure Mention (2019) believes that FinTech is the future of financial services. It has been closely analyzed by academics and led by innovators for several years. Finally, it has suddenly become the focus of regulatory bodies. FinTech is a broad term which consists of business models related to innovative financial services and the financial technology itself. Simply speaking, FinTech is an innovation in the way business improves its delivery, processes, and financial services. Several developing countries like India and China have had its impact. It also pressurizes leading financial bodies in developed countries to improve their capabilities, upgrade their processes, and make their strategies transparent. Leading financial companies are looking forward to the growth of the FinTech business model. Leading banks have also adopted this technology, such as Citi, Goldman Sachs, and JP Morgan Chase. Instead of return-oriented, these investments are now strategic to make the most of FinTech.

James Onyango Okodo (2019) discusses the commercial banks of Kenya and their performance after adopting FinTech innovations. Technological advancements are constantly transforming the way people socialize, share information, and work. It is evident that the banking sector is going through a great transformation with FinTech innovations. Kenya’s banks are also collaborating with this new technology to redefine their delivery of services. In this study, he investigates how collaborations between FinTech and commercial banks impact the efficiency of banks. This study uses input-orientation and data envelopment models on the basis of the intermediation dimension. This research has collected secondary data from 44 banks based in Kenya for 2009-2018. There are four Intermediation Models used to estimate technical efficiency in the banks before and after collaborating with FinTech on the basis of Loans, Deposits, Interests as expenses and income from Interests as outputs and inputs.

Daniel Gozman et. al (2018) explores FinTech startups and the ways they bring innovation to the financial sector. Financial organizations are going to deconstruct and redefine their business models with the onset of financial technology globally. Many FinTech startups are coming forward to work with financial institutions. But there is a significant complexity involved in bridging the gap in innovations, financial services, industry experts, technologies, and services. This study attempts to gain better understanding on the international FinTech scenario. It also analyzes the involvement of entrepreneurs in SWIFT’s Innnotribe competition. In this study, the researchers used cluster analysis methods. They picked representatives out of 402
FinTech companies and gathered basic insights to the FinTech structures. In this study, they found the cluster of FinTech developments for business infrastructures, core services, and ongoing technologies, analyzed how these startups blend various models to redefine the flows of financial data using cooperative and competitive systems like hybridization, personalization, extensive access, disintermediation, and financialization, and finally came up with related approaches to drive value with pre-defined cooperative and competitive mechanisms.

Xin Tian et al (2021) conducted a survey in FinTech organizations and data-driven strategies they implement. This paper is a combined effort to provide insightful comparisons regarding the pros and cons of various data-driven algorithms. The researchers focused on the potential of data-driven strategies and the future of FinTech startups. They discover and conclude the recent algorithms and approaches used by FinTech to data privacy, risk management, sentiment analysis, and portfolio management. This paper compares various initiatives of FinTech regarding recent developments and data analytics. The framework has been developed for the analysis process and insights about the regulation, implementation, and workforce development. According to the authors, this is probably the first paper which covered data-driven strategies in such a huge scale in FinTech to discover the issues, challenges, and potential in this segment. Both current and future prospects have been covered in this paper.

Chris Brummer and Daniel Gorfine (2014) explore some of the regulatory challenges in this toolkit. Instead of announcing policy prescriptions, they argue the deliberate use of agile tools and approaches and regulatory policies that are matching such dynamics. They are more focused on market transparency and integrity, capital formation, and protection of investor’s interest. There has been a huge surge of technological innovations in financial services and markets over the years. As a result, this innovation is going to reshape the overall structures of the markets, the way investors can use and receive data, how companies deploy and access their capital, and how customers can use and access financial solutions. From online/digital currencies and digital payments to online finance/investment options, FinTech covers everything and is definitely going to become a challenge for traditional banks and financial organizations. The way FinTech is growing and posing challenges to the current regulatory policies and requirements for fresh thinking for making regulations favorable for the growth of this industry are still the matter of concern.

Harrison Stewart and Jan Jürjens (2018) apparently explore the factors affecting both organizations’ and users’ outlooks in accepting FinTech, including data security, customer trust, user interface, added value, and growth of FinTech, in this paper. Financial technology has increasingly been adopted with the increasing usage of mobile devices in Germany. FinTech has been considered as the first step to boost business opportunities for financial startups. But these opportunities can be further improved with the introduction of mobile applications and other platforms. However, there are some issues related to the rising cases of mobile security threats to both FinTech companies and end users. The results from this study prove the effects of data security, customer’s faith, and UI design on the acceptance of FinTech. In this research, the authors have proposed “Intention to adopt FinTech in Germany” model on the basis of five other components and Technology Acceptance Model (TAM). The authors are hopeful that this study might help improve FinTech performance and facilitate banks to ensure scalable economies.

Mercurius Broto Legowo et al (2020) developed a conceptual framework of FinTech in technology. The term “FinTech” is combined by “finance” and “technology”. These days, FinTech has come up as a new business model, which is somewhat new and innovative which is the matter of public attention. This study considers the main issue related to organization, technology, and cash flow, which affects how Fintech works in terms of innovation. In this research, a qualitative and descriptive approach is used and it also uses secondary data from several surveys to analyze the study. This study concludes that FinTech has a clear goal for businesses and the conceptual framework is based on the ongoing theories and surveys. This study contributes to provide detailed understanding for the growth of FinTech businesses and help the researchers who are looking for more detailed research on FinTech.

Changwon Lee (2015) presents the existing use of Fintech in e-business and the capabilities of cutting-edge Financial Technology. FinTech has constantly changed the business ecosystems and latest technology. An organization will fail in the corporate world if it fails to ensure core competency and value proposition. FinTech faces the challenges in planning and execution of its current resources and decisions. Recent financial technology and innovation has become a core business strategy in this global ecosystem. There is a need for a comprehensive Fintech research on e-business and technology to come up with practical and theoretical frameworks as there is still a lack of academic research on Fintech. This study explores major features and definitions of financial technology, reviews relevant studies, and analyzes case studies about e-Business experiences in FinTech. It shows the importance of managerial views about future and existing Fintech ecosystems in real life and theories.

Research Questions

- What are the needs of Business analysts for securing financial transactions?
- Is fintech present proper cybersecurity?
- Is our market mature enough to adopt it?

Objectives

- To Study Financial Technology and its Loopholes
- To Study Solutions of Cybersecurity for Fintech
- To Study Market Maturity
UML (Unified Modeling Language)

1) CLASS DIGRAM

2) USE CASE DIGRAM
DFD Level One

Business Analyst Requirements

Benefits
- Economic
- Convenience

Risk Solution
- Easy Transaction Process
- Financial

Fintech Solution
- Legal
- Operational Service

DFD Level Two

Business Analyst Requirements

Benefits
- Economic
  - Low Cost
  - Profit
- Convenience
  - Fast & Secure Data

Risk Solution
- Transaction Process
  - Simple & Key Transactions
  - Share the API
- Solution of Financial
  - Secure Transactions

Fintech Solution
- Security Compliance
- Legal
- Cyber Security
- Hack Solution

Fintech Funding Especially In India

Source - https://fintech.global/fintech-companies-in-india-have-raised-over-13bn-across-more-than-460-deals-since-2014/
Methodology
Fintech businesses are known to be truly modern in technology but they have different challenges to succeed. Building trust is one of the first challenges. When it comes to money, security is a major concern among Fintech users. Companies should stay ahead in their operations to avoid any breaches. Governments across the world are pushing their regulations for transactions and regulating money transfers and investments to avoid incidents of digital theft and money laundering. Globally, regulations are also pushing for KYC checks on the customers that can be a drain on resources and terribly inefficient for the companies. There are entrenched opponents that fintech companies need to deal with, as they highly resist to change. Fintech companies need to deal with the spending power of international banks and giant insurance leaders as well as their willingness to market and grab consumers’ attention. Fintech businesses need to use all the resources provided to make data-driven and smart decisions. There is too low margin for error but stakes are high enough. However, international fintech market is all set to be around $310 billion Empire by 2022 with a whopping CAGR of 24% from digital banking to global money transfers. More than $135.7 billion were invested across the world in 2019 alone, spanning over 2693 deals in Fintech businesses. Fintech’s future has never been so brighter. However, Fintech businesses still have a long way to go due to increasing competition with new startups entering the market with venture capital and leading banks. Luckily, Fintech businesses can keep staying ahead and innovative by tapping the growth potential of their own organization with the power of data and business analysts. In this study, we have gathered both primary and secondary data to answer the research questions mentioned above. For secondary data, we have gathered information from trusted sources like government portals, official news and media sources, press releases, other research articles and journals, other studies which have been done on the same subject, and other sources to complete the answer of the first question. For the next two questions, we had to collect information from a sample of 23 respondents who were higher authorities and officials in the banking and finance sector. We needed to seek appointments and follow social distancing guidelines due to COVID-19, but we have collected enough information to complete this study. However, there is still a scope for further studies as FinTech is an emerging field, not only in India but globally.

Results
Business Analysts analyze and mine the organizational data to provide actionable insights through business intelligence. With these insights, Fintech companies can optimize their operations and make smooth data-oriented decisions to make the most of opportunities and avoid serious financial and regulatory risks.

Q1- What are the needs of Business analysts for securing financial transactions?
1. Economic Benefit – Fintech enables companies to use modern technology to enhance their area of service and reach. With proper use of mobile technology, FinTech can improve profitability of the organization while saving operation costs as more and more people could use this kind of service. By enabling consumers to manage their finances with tablets and smartphones, companies can easily make their operations smoother.

2. Convenience - As discussed above, Fintech companies use mobile connectivity to increase the number of users and improve convenience and adeptness of transactions. Security of the business is one thing, but convenience should also be kept in mind. There are so many options for fintech businesses to streamline their services with improved customer experience. For example, they can offer individual payment platforms. Some of the leading companies using their services are Spotify, Netflix, Uber, L’Oreal, Facebook, Burberry, and Microsoft.

3. Fast and Simple Transaction Process – Fintech can make financial businesses more efficient by sharing the API to the consumers. It can also make the process of collecting payments and issuing invoices easier with utmost accuracy. It helps improve customer relations along with providing professional service and increasing the opportunities of having returning customers.

4. Secure Transactions – Financial institutions across the world are looking for the innovative ways to provide the high-end and cutting-edge financial services. To improve the confidence of the users for their services, using the latest security measures is of paramount importance. Making the most of the latest technology results in a great investment on security. Data encryption, biometric security, blockchain, and tokenization are some of the modern security solutions.

5. Legal Risk Solution – With the growth of customer base, Fintech companies need to gather more insights related to user behavior. Making system hack-proof is one of the important applications of Fintech. Business analysts need to track suspicious activities before anything wrong happens in their platform. Fintech solutions may be helpful to detect any fraudulent event that may cause money laundering and other regulatory problems. They can detect risk indicators and user behavior metrics with a strong business analytics solution, such as –
   - Huge amount of transfer
   - Constant transfers to one account from several accounts

Then, they align the same to other aspects like size and nature of business. This type of detailed analysis can detect any red flag before anything wrong happens.

6. Operational Security Risk Solution – Business analysts can effectively mine and analyze business data to reveal irregularities, patterns,
and any loopholes in an organization that needs immediate attention to enhance cyber security in India. It is very important to track any issues before something big happens. Considering the recent example of investment app hacking in which 2000 Robinhood accounts had been hacked, there was a huge sabotage with the turndown of their official app for five hours, causing a huge stress to their infrastructure. Such types of incidents cause a loss of market share and damage the company’s reputation in this day and age. This way, business analysts can use Fintech solutions to gather insights from historical information and align it with real-time transactions to catch any anomalies.

We gathered insights of the following questions using primary data through Google Forms online to complement this study. This research is hopeful to support academicians and financial businesses to do further research about FinTech and its growing scope in India to stay ahead in competition and make their businesses even more secure.

Q1. Do you know about Fintech?
Here, 56% people answered “Yes” and the rest 44% people answered “No” (Figure 1). It seems that there is still a need to increase awareness about Fintech and its scope. Hence, further studies are needed about Fintech and its growing usage and benefits. It is very important for financial institutions and banks to tap on the full potential of this emerging solution for staying ahead in competition and to make their transactions secure.

Q2. Which is best for securing financial transactions?
Both Blockchain and Fintech are important solutions for banking and finance sectors in India. There are several organizations adopting both solutions to make their transactions secure and hack-proof. However, there are some regulatory issues and challenges with Blockchain currently. Hence, most experts are showing their trust on Fintech solutions. In this study, around 74% respondents considered Fintech better for financial security than Blockchain, while only 26% participants favored Blockchain here (Figure 2).

Q3. Does Fintech present proper cybersecurity?
In this research, we found 61% participants who believe that Fintech provides proper cybersecurity and helps in securing financial transactions. On the other side, there are 39% experts who still have concerns over security with Fintech solutions (Figure 3). It seems Fintech needs further improvements to enhance its security against fraudulent activities and security breaches.

Q4. Is Indian Market mature enough to adopt Fintech Technology?
This is one of the most important questions in this research. There are 74% participants in this study who believe that Indian market is mature enough to adopt Fintech technology and only 26% believe that there is still room for improvement (Figure 4). Well, it is a positive sign that Indian banking and financial institutions can adopt Fintech and enhance their internal security while improving convenience for the users.

Q5. Do you think blockchain is a good concept?
Here, 65% believe that Blockchain is a promising concept for the banking and finance industry, while 35% do not agree with that (Figure 5). Blockchain is a decentralized collection of data designed with improved focus on security, privacy, and cryptography. It has been proved
ideal for Fintech and banking use cases. A lot of banks have already adopted Blockchain to record data more efficiently. Blockchain has reached 29.7% of market share in banking in 2020 alone. It is a very cost-effective and safe way to record transactions and update data in real time.

![Figure 5 – Is blockchain a good concept?](image)

**Conclusion**

Apart from the benefits of Fintech discussed in this study, financial technology has enough potential to transform traditional practices and bring innovation by creating new services or products and helping small businesses and customers. It is the right time for the banking and finance sector to adopt Fintech and consider its benefits for the economy and financial system for the bright future ahead. In addition, it is very vital for organizing the transitional economy. Fintech is going to have a great journey and fintech organizations are going to have a great race for growth. But they need to do it smartly to avoid regulatory risks and losing market share in competition. This way, business analysts need robust solutions to analyze their information and deliver accurate info without any technical intervention. This study provides a conceptual framework and deep insights to know the potential of emerging Fintech approaches. Along with providing a clear insight to Fintech and its immense capabilities, the study aims to improve the awareness and provides further research paths to have a better understanding of the fintech industry. Furthermore, the study explores Fintech startups in global environments. The emerging financial technologies are already tapping on developing countries to leapfrog the restrictions and limitations in traditional banks. It is going to play a vital role in improving the lives of millions of customers at the bottom line. This research attempts to fill the gap in existing research about Fintech with the perception of a business analyst. We have observed that there is a growing need in Indian finance and banking sectors to adopt Fintech and Blockchain technologies to stand out in competition and bring additional security for the customers. Fintech is being adopted by many Indian banks and financial institutions to tap into its growth potential and to avoid security risks and fraudulent practices.

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Appendix A
Q1. Do you know about Fintech?
A. Yes  
B. No

Q2. Which is best for securing financial transactions?
A. Blockchain  
B. Fintech

Q3. Does Fintech present proper cybersecurity?
A. Yes  
B. No  
C. Maybe

Q4. Is Indian Market mature enough to adopt Fintech Technology?
A. Yes  
B. No

Q5. Do you think blockchain is a good concept?
A. Yes  
B. No

Author Profile

Author 1 is an Indian citizen and pursuing B.tech in Computer Science and Engineering form Chandigarh University, Punjab, India. She has been working with few international firms and in capacity of Business Analyst Intern.