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Financial Technology during and beyond Covid-19 Era - An Evaluation

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Abstract
Innovations and technology supporting the finance industry to serve the society in a great way. In this article we explore the fifty years of Fintech evolution in phased manner and the adaptation with support of banks, financial institutions and corporates. Our primary focus on the fintech evolution during covid-19 and post covid how the technologies supported the financial inclusion and the redemption of blockchain with AI. We also discussed the post pandemic ear the alternate currencies dominance among the younger generation. And finally, the challenges over the defending the data, information and many more against the scammers and hackers also discussed. With these finds we concluded organisations must adapt to technologies and fight against the evils to protect the interest of people and move quickly towards adaption of technology are the key.
Keywords: Financial Technology, Fintech, AI, Blockchain, Finance, Covid-19 Pandemic

Introduction

Banking ecosystem is much dependent on the technology and innovation. In the digital era all the economies are much dependent on the tech-based growth and also well supported and preferred by the younger generations. In order to enhance the financial inclusion to construct stable socioeconomic pliability in the crisis time (Covid-19). The Fintech evolution is supporting the developing economies and under privileged communities. Financial services are making inroad to serve them with the speed process with lesser cost and in a secure mod. These best features enable more organisations to invest for the research and introduction of technology amounting to over $40 billion during 2019. Jolt felt all over the world due to the impact of pandemic, medical services and economic status at all levels was facing immense pressure, no country was spared. Governments all over the world swiftly acted on the situation, to prevent the spread of virus and damaging human life. They enforced strict conditions on public mobilities. Dur to these preventive actions the adverse effects on the other side, every nation started facing hardship on economy. Except the medical related services to save the life, other industries of both private & public sectors were closed. Its never the less to mention when country itself facing hardship, the households are not exempted. Many reports mentioned, the households faced immense difficulties. They faced challenges like no access to their food, lost their day to day life. No words on finance sector, access to money or financial services was too difficult. When the impact of pandemic was eased to an extent government started their relaxation plan, and open for public to bring back normal life.

The next important step to government is to start action against the calm and down time. They began to revive economy and started supporting the society with the help of fintech applications. To have a better fintech service, government introduced digital products in the form of mobile wallets, via this private sector organisations can pay their employees' salary, also the payments to the people who doesn't have bank account can also get paid. But the adverse side on digital wallet also peep up, in the form of limited support and low penetration among the people. Adding to this the literacy rate on finance and digital products played its part.

Review of Literature

The article described how the analysis of lending in past and also how the lending pattern during the Covid days. They also analyzed how the lending happened between Fintech and bank loan records. In this article authors found the ways of financing done by the Fintech companies also identified the credit access to the society during the pandemic, but this sudden change in the phenomena may not be stand good for ever. Authors noted there was raise in delinquency of Fintech lending but the bank loan defaults are not raised. This is a real evidence borrowers availed the Fintech loan and managed to pay the bank's loan where the defaults are not changed much. The results were concluded by the author as the real example of shadow banking effects. This may be a hint at the fragility of few Fintech when the borrower defaults rate increases (Bao and Huang).

This article describes how the financial challenges imposed during the crisis like COVID19, and the challenges Fintech faced during this period. Author adapted conceptual model to examined the challenges in Jordan area using 500 users to study how the Fintech application are impacting the users. Researcher used five hypothesis and tested using structural equation modeling techniques (SEM-PLS). In this analysis the results indicated that professed benefits and social norms are the main affected part while using the Fintech applications. The findings prove the fintech applications usage is belief over apparent risks and its intentions. Adding to that the article says fintech applications should be accessible and easy to use for the needs of the society, with data security and confidence (Al Nawayseh).

This article, authors reviewed the methodology to identify the factors impacting the Fintech acceptance during the Covid19. This article explored the opportunities and challenges encountered by the Fintech users and also the service providers. In this article author highlighted benefits of digital data availability and its access to the Fintech companies and their analysis based on the data, customizable approaches. Authors provided supporting evidence for policy makers in Fintech or start-up companies. This will stand as a reference guide to researchers to make as relevance for further study (Singh et al.).

The article expresses the impacts during covid and post covid era on Fintech and also the sustainability development practice in day-to-day operations and financial services by using automating work process. Authors studied the consequences and contribution of Islamic fintech post pandemic. In this paper, how the finance industry is correlated the sustainability development and the corporate performance. Authors explained how fintech's vital contributions to the financial institutions when there is crunch situations to support the societal development. Impact of Islamic Fintech goes beyond short-term crisis management. It is anticipated to have a significant role in the upcoming years' economic recovery. Beyond temporary fixes, Islamic Fintech offers many advantages. It might build a more robust and durable economic base (Alsaiari and Nobanee).

This article elaborated the Indian Fintech and its role in the financial sector and contribution to the society. Authors described in detail with the empirical data with three sub-sets using professional from Fintech, end user of finance sector and financial institutions experts. In this article authors explained the three major factors influencing the alteration of financial ecosystem. The results of the study expressed that adaption of Fintech in India was felt as lesser penetration, but during the stressful period and after that there are significant changes in the adaption of Fintech. They also indicated that the positive out comes in the acceptance of Fintech between end users and financial sector. With these there are more changes towards up-north direction in the evolution and financial inclusion (Gupta and Agrawal).

Research Objective

- To examine the Fintech activation on during Covid-19 and post Covid-19 era.
- To evaluate the effects, impacts, causes, and remedies in Fintech and Finance Industry.

Scope of the Study & Limitations

- The present study gives the views of covers Financial Technology Beyond Covid-19 era Merger with Crypto Currency and
- This study covers various ways and methods to adapt Fintech post Covid period.

Research Methodology

- Secondary research was conducted to study the FinTech industry during and beyond COVID-19 based on the online or web-based reports, blogs, articles and research papers.
- This paper first offers conceptual discussion on the much-debated topic Fintech adaption or trends and then systematically offers an analysis.
- Fintech trends in the mentioned period and its role to support banks and financial institutions to help the society.

Reviews and Results

Evolution of Fintech applications

Mid of 19th century the fancy name started to evolve in the finance industry, the idea behind the Fintech on those days to operate as a back-end system in the industry. But slowly the system of Fintech transformed to customer-based service system. From the mid of 19th century, Finance and Technology goes hand in hand phenomena. Where there is finance shortfall or crisis the technology will come for support and provide solution to the problem. The Fintech development and growth was classified in three phases, the first phase Fintech-1 era considered as analog to digital application was classified between 1866 and 1967. The foundations were made during phase 1 of Fintech era to connect the awareness over the financial information, transactions and payment via telegraphs, railways, canals and via transatlantic telegraph cables. The formation of infrastructure for telegraph cables were built to enable the globalization process began. And also, the most revelation of credit card application started during the period. These are the foot print for the next phase of Fintech.

The second phase of Fintech era – duration 1967 – 2008, considered to be digitalization of technologies used for the purpose of commercial transaction and communication. In this era of Fintech, the financial service industry begun its digitalization process along with the growth of internet banking application. During this period some of the banks like Wells Fargo – USA and ING Bank – Europe introduced ATMs centers and digital application and tested for the customers benefits. Rise of ATMs proved as most appropriate example of technology and finance relationship, towards first step of digitalization in finance sector.

Mile stones in Fintech Era 2

- 1971 NASDAQ established,
- 1973 SWIFT application was commissioned,
- 1981 Bloomberg established,
- 1983 first mobile phones emerged, and
- 1985 online banking applications started.
- 2001 number of customers consuming these technologies reached to one million.
- 2005, first physically branchless banks emerged in the UK by ING Direct and HSBC Direct.
- 21st century banks' internal processes, external systems, and interactions with their customers were completely digitalized.

Current phase Fintech 3 era from 2008 and beyond, begins with the global economic crisis. The financial market was disrupted in the economic crisis brings the need of Fintech applications. With the support of technologies, the Fintech providers use to their fullest advantage to reach and serve the customers with low cost, better transparent easy interfaces through the technology platforms designed and mobile applications. This phase of Fintech primarily to face the financial crises across the world. But, in this process western part of the world was actively using the Fintech applications. Rest of the world Aisa and Africa could start using the Fintech as a separate era named as 3.5. In this profound phase of Fintech, the new phase of Fintech has begun its duty with high penetration strategy with the help of grown technology also with mobile applications which is popular among the younger generations made purpose easy to reach the society. These periods could be considered as a better performing era, they believe to penetrated and tech savvy population and middle-class population. The unused market was also tapped in an effective way.

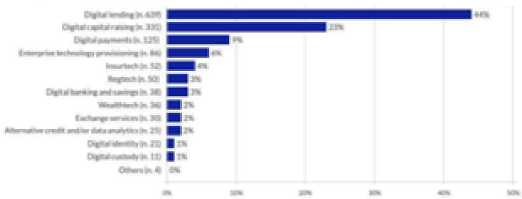
Fintech during Covid Pandemic

The Global COVID-19 pandemic hits in early 2020, the study on fintech market performance when the covid hits the world very hard, but it managed to stay well grounded. The performance of first half during pandemic was matched with the previous year (2019 first half the growth reporting was 21% YoY).

- Fintech firms globally reported faster than anticipated performance when pandemic struggle.
- The performance was better by fintech were the area was deeply affected.
- The key benefited and performed area were women, lower income family, and MSME segment, these are the groups considered to be the one least served society or faced challenges to access financial service.

All the verticals mentioned below but except one grew at a faster pace than initially reported in the rapid assessment study, with retail-facing fintech firms surveyed reporting an average increase 44% of transaction.

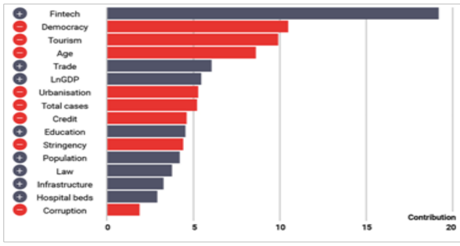
Figure 1 Survey Sample Composition According to Primary Fintech Vertical (Total Number, Percentage of Total)



Source: World Economic Forum

Quantifying Growth during Covid-19 Pandemic

During the hardship around world, due to ripple effect, there was many industries and services have fallen down due to non-operational possibility and restriction. According to research Technological, Social, Political, Economic, and Healthcare factors across many countries are shown positive growth when compared to Tourism, urbanization, credit and corruption.



Source: World Economic Forum

16 factors affected the differences in GDP growth between countries. These variables were ordered according to how much they contributed to the differences in GDP growth between nations. The Shapley Owen R2 decomposition method was used in the analysis. With indicators in parenthesis showing whether a factor had a positive or negative impact on GDP growth, the total contributions add up to 100%.

Fintech and It's Positivity

Here is the growth of fintech during Covid-19. After covid pandemic how the financial industry was around the world reborn to serve the society. The futuristic growth plan and the developmental directions for Fintech industry-

- Fintech has expedited and disrupted the market's financial digital transition, establishing itself as the new standard for financial services.
- E-commerce transactions have seen significant growth and great demand around the world, implying that the winner can facilitate customer engagement in these transactions, particularly payment solutions.
- Fintech startups capture the spotlight by accelerating financial institutions' services to e-services rather than performing in-house development.
- This circumstance has created new chances for mergers and acquisitions between Fintech startups and traditional banking institutions.
- Fintech has experience leveraging the most cutting-edge technology used in financial services, such as AI and intelligent software, to suit client needs.

Fintech Trends Post Pandemic Era

After two long years of lockdown, illness, untimely demise of many around the globe and economic slowdown, things started settling down. But the hardship still continued with loads challenges; like raise in inflation, job market volatility and so on. Government spent huge amount of cash in the form free bees, subsidies, medical related, vaccinations and many efforts to save people. When the lockdown restriction was removed then the side effects of lockdown and other activity need to be repaired. To make everything in order, every country need act swiftly with all possible ways. One of them would be Finance industry and its ally Fintech. With the help of technology every government and private sector tries fill the finance gap and serve the society. Here are some the ways the evolution met the finance industry to serve people post covid-19.

More Fintech Apps than Ever

Fintech grows year over year and gain the support of consumers. Over a period, these platforms are becoming permanent mode of accessing their financial needs. When COVID-19 was impacting the world, the embracing the fintech has amplified due to circumstances like not able to meet bank or financial institutions. The growth of fintech has increased largely form 2020-2021. The usage growth is still continuing over 55% of consumers, are benefiting and helping to challenge the hardship in the economy. The outcome of this, more fintech related application are downloaded by the consumers, for their financial needs.

Alternate Currency, Platform and Trade – Overview on Cryptocurrency, Blockchain and Bitcoin

Nearly over a century the alternative ways of trades like barter system and other forms of trade compensations are out played by currencies or cash values, now the technology and trend bring a new dimension for the Fintech world. The platform is called Blockchain technology, currency is called crypto and the trade settlements are done via the contract which are not dependent on any mediators or agencies and also eliminates confirmations. Crypto was inducted as a virtual currency, where there is no physical appearance in the market. This allows peer to peer transaction via online. Using crypto the as tool for portfolio building, in the form of gold, dollar, other investments, and largely used for crypto trading.

The first cryptocurrency introduces and gained most fame in the market by Bitcoin, this is a virtual currency, where there is no physical presence. As mentioned earlier bitcoin also used for trading purpose among themselves, but without any regulation. Bitcoin introduced with the support of blockchain technology, this provides sophistication of organised in blocks and protects the data involved in this transaction. In an nut shell, blockchain is a decentralized electronic ledger. This allows P2P systems, in this the participating parties are anonymous and this gives luxury of not reveal any details. The role of middleman will be removed when using the blockchain along with secure platforms with the help of cryptography. This will enable the trust between the parties who are participating. Hence the permanency of transaction is established and this cannot be reversed.

The high hype over the currency in last decade help to surge in its cost, and gain most visibility among the public, as on first quarter of 2024 the cost of bitcoin rose to $72000. As the popularity gained momentum, financial institutions and government eyes are captured by the bitcoin or digital / crypto currency, but still among some of the countries raise doubt about the currency. In spite of the current dilemma some of the governments and banks or financial started exploring these in recent times, for example –Investment bank JP Morgan made an announcement about their interest in Bitcoin over $50 million, also mentioned it will be important portfolio for them. Also quoted that they will interduce cryptocurrency for payments in the name of 'JPM coin'. In this line not only JPM, other players like Amazon, eBay, and Craigslist announced their interest and started accepting crypto in their payment platform.

Emerging Payment Technologies

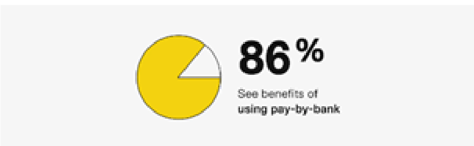
Newer payment systems are introduced to change the payment method pattern from online payment or credit card payment to peer-to-peer payment system using bank account payments. This method acts as a real time payment from bank account to the sellers. According to Plaid's Fintech report, the compound annual growth rate (CAGR) for real-time payments is expected to increase to one-third of the transactions will be by 2032.

Credit Score Alternatives for Consumer Credit Trend

New formula to determine individuals credit ability to enjoy the financial system access for their money needs. This proposed method will be away from the normal method of credit scores. With the new formula of evaluating credit scoring will help to determine based on the cash flow data, pay stubs, utility bill payment and so on. This will help people who are newly migrated can also get financial access. The API supported tools are allowing the companies to access the data and helps them to offer alternative solutions for loan decisions. This expands their customer base and helps improve financial access for millions of Americans.

Bank Payment Usage Will Continue to Grow

Digital payment or cashless payment method started gaining popularity among the young generations. All the governments wish to remove black money deals, instead encourage people to use digital payments, which helps to reduce the cost of currency / coin printing. Pay-by-bank is picking up momentum among the people. In recent decade the popularity has increased almost 2/3rd of the population willing to pay through banking system. Expected to grow by 86% with in the year 2030.



Source: Plaid's 2023 Fintech Effect

From the year 2023 the instant payment system / RTP (Real Time Payment) has gained momentum, using bank or credit card system. The transaction value of RTP is expected to grow up to 289% between 2023 to 2030. Numerus Fintech organisations and applications are supporting the government initiatives.

Financial Identity Fraud

The online fraud is a raising concern; with the increase of technology, these synthetic identity fraud and identity thefts are raising year over year. These thefts are also identified as cyber theft like unethical hacking, forging with fraudulent information to steal from the bank account. Dealing these deep fake techs (fraud) continue to raise. These challenges are concerning the financial industry to fight hard against it. These challenges are fought hard with the help of robust technology to combat these attempts. In order to combat the problems, organisations use various software, anti-fraud network to track the identity involves in fraud. The combat between scammers, identity verification systems and deep fakes will continue ever.

Conclusion

We have experienced how the fintech industry thrived over many years with the new innovations in tech industry and the same has been accepted by people. This proves the attempts to make financial inclusion has been performing well by the banks, financial institutions and efforts by governments. But all these positive are not just like that progressing up north, these growth and success are hampered with the powerful disruptions and interventions with the intention to loot or make an easy money by the scammers and hackers. They are challenging the institutions and public with support of technology itself.

The essence of this study is to identify which specific financial techniques are the most important for successful financial activities. In the above analysis, we realize the importance of technological support in financial activities. Today, we seek more support from technology to overcome regular financial needs and tasks. However, this also includes some disadvantages for users, which we want to address by creating controlling techniques. Additionally, we expect new techniques from artificial intelligence. New era that offers significant support for financial transactions with security-based exchanges for future financial moves.

We conclude with our understanding that, future of fintech is in good shape though there are mountains of challenges to climb. But the future tech innovations and grabbing with two hands by every one shows a bright spot. In the further or future studies about the Fintech, researchers can include their research period innovations and trends also can high light the most trending methods and growth perspective of those trends. Also, can add how much Financial Inclusions made progress in these efforts.

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