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FinTech is enabler or disruptive to the Banking Industry: An analytical study

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Abstract

FinTech, as it is more often known, is a term used to describe emerging technology that aims to enhance and automate the provision of financial services. At its foundation, FinTech uses specialised software and algorithms that are employed on computers and, increasingly, smartphones to assist businesses, business owners, and individuals in better managing their financial operations, processes, and lives. The term "financial technology" is combined with the word "FinTech." The word "FinTech" was first used to describe the technology used in the back-end systems of established financial institutions when it first appeared in the 21st century. However, since that time, there has been a change toward more consumer-focused services and, thus, a more consumer-focused definition. Various areas and industries, including education, retail banking, fundraising, and investment management, to name a few. This study is conducted to understand, the impact of FinTech in the Banking Industry. To find out whether it is disruptive to the business or it is an enabler to increase business.

Keywords: FinTech; Disruptive; enabler; Innovation; Emerging Technologies; Artificial intelligence; Big Data; Analytics; Cryptocurrency; Banking Sector; Banking Industry

1. Introduction

The financial services industry is undergoing extraordinary change on a global scale. With the aid of new technologies, startups and other competitors are vying for market share. Companies that offer alternative solutions and business models are referred to as FinTech (financial technology) companies, and they have the potential to make many traditional banking procedures obsolete. This global tendency will be extremely clear. Over the next few years, it is anticipated that it could put about a third of all bank income in jeopardy.

On the other hand, disruption opens up new possibilities for banks as well as FinTechs. Even banks themselves may further the digital revolution, create new revenue streams, and lead innovations.

A challenge for banks is the escalating competition from FinTechs. If banks do nothing, the new attackers could syphon out between 29 and 35 percent of their revenues through client attrition and declining margins. On the other hand, banks may, in the best-case scenario, boost their returns if they take on the digital transformation of their entire value chain themselves. To do this, though, a fundamental shift in perspective is necessary. The "think tank" of banks must include innovation in all facets of their operations.

2. FinTech Landscape

Since the middle of 2010, the FinTech industry has flourished, with established financial institutions either picking up new companies or developing their own FinTech solutions, as well as startups obtaining billions in venture capital (some of which have become unicorns).

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The majority of financial businesses are still created in North America, with Asia coming in second place and Europe in third. The following areas, among others, are some of the more active ones for FinTech innovation:

- Bitcoin, Ethereum, and other forms of cryptocurrency, as well as digital tokens like NFTs and digital money. These frequently rely on blockchain technology, a distributed ledger technology (DLT) that doesn't have a central ledger but instead keeps records on a network of computers. Smart contracts, which use code to automatically carry out agreements between parties like buyers and sellers, are another feature of the blockchain.
- A concept called "open banking" contends that everyone should have access to bank information in order to develop apps that link together a network of financial institutions and other service providers.
- An illustration of insurtech, which aims to use technology to simplify and streamline the insurance industry, is the all-in-one money management application Mint.
- Regtech aims to assist financial services companies in adhering to compliance regulations, particularly those pertaining to anti-money laundering and know your customer (KYC) procedures that combat fraud.
- Investment advice is automated by roboadvisors like Betterment to cut costs and broaden accessibility.
- Unbanked/underbanked services aim to assist low-income or underprivileged people who are neglected or underserved by conventional banks or financial services providers. These programmes encourage Financial inclusion.
- Cybersecurity and finance are related because of the rise in cybercrime and the decentralised data storage.

3. Some Examples of FinTech

FinTech has been used in numerous financial fields. Here are a few illustrations.

- Roboadvisors are software programmes or internet services that may be used by regular people to invest their money in the best possible ways automatically and frequently at little cost.
- To buy and sell stocks, ETFs, and cryptocurrencies from the mobile device, frequently with little to no commission, use investment apps like Robinhood.
- Payment apps like Paypal, Venmo, Block (Square), Zelle, and CashApp make it simple to send money instantly and electronically to people or businesses.
- Customers can view all of their accounts in one location, create budgets, pay bills, and more with the help of personal finance apps like Mint, YNAB, and Quicken SimpliFi.
- Using P2P lending sites like Prosper, Lending Club, and Upstart, consumers and small business owners can borrow money from a variety of people who are directly lending them microloans.
- Customer can store and conduct transactions in cryptocurrencies and digital tokens like Bitcoin and NFTs using crypto applications, such as wallets, exchanges, and payment processing software.
- The use of technology specifically in the insurance industry is known as insurTech. One illustration would be the employment of tools to track customer's driving and modify auto insurance premiums.

4. Online Lending - Peer-To-Peer Platforms

While FinTech businesses are growing throughout the financial services sector, digital pioneers are particularly noticeable in the conventional markets served by banks. Platforms for peer-to-peer lending online are leading the financial revolution. Instead of using conventional lenders like banks and building societies to fund loans, these platforms connect borrowers with investors (such as private individuals) online.

Peer-to-peer platforms are distinctive in that they employ computer algorithms to assess a borrower's loan application and determine whether it complies with their credit standards. No interaction with a loan officer or trip to a bank branch is necessary for applicants because the entire digital lending procedure is automated.

Commercial banks employ similar technologies more frequently, but they do not digitise credit processing to the same extent. Instead, they mainly rely on offline procedures and staff to decide whether to lend money to a borrower.

Importantly, peer-to-peer lenders do not take or use deposits to fund loans, in contrast to banks. Instead, these platforms offer the loans that people and institutions can choose to participate in on an online marketplace after electronically reviewing the loan applications submitted by borrowers.

While returns on peer-to-peer investments are often better than those on bank deposits, investors may lose money if a borrower defaults and is unable to pay back the loan. Platforms for peer-to-peer lending take a fee for each loan they handle rather than investing in the loans themselves.

In comparison to banks, peer-to-peer lending offers consumers faster and more affordable financial access (Cornaggia et al, 2018). Additionally, peer-to-peer lenders support the availability of loans for people and businesses located far from bank branches (Cumming et al, 2021).

Additionally, compared to loan officers, digital algorithms are less prone to conscious and unconscious prejudices, which lessens lending discrimination (Bartlett et al, 2022). However, this might be countered by peer-to-peer investors' propensity for supporting loans to borrowers who share their traits (Duarte et al, 2012; Iyer et al, 2016).

Whether peer-to-peer lending fosters financial inclusion by enhancing credit availability is a crucial subject. Early data on this subject are contradictory. According to some studies, marketplaces can replace bank credit, changing who provides credit rather than expanding the total quantity of credit accessible as a result of digital disruption (Cornaggia et al, 2018).

However, other study reveals that peer-to-peer lending enhances bank lending by extending credit to those that banks are hesitant to lend to (Tang, 2019).

It appears that peer-to-peer lending has broader economic impacts. For instance, during crises, these platforms can quickly cover the credit needs of borrowers (Yang et al, 2016). Peer-to-peer loan access restrictions worsen household financial stress and the likelihood of declaring bankruptcy, especially for low-income households (Danisewicz and Elard, 2018).

Peer-to-peer lending is more prevalent in areas where entrepreneurship and business creation are more prevalent. For instance, in the United States, a 10% increase in peer-to-peer lending (per capita) results in a 0.44% increase in the number of establishments.

But because peer-to-peer loans are frequently capped at tiny sums, the majority of these new businesses tend to be small businesses with fewer than five employees. Additionally, many of these companies operate in conventional sectors with modest startup costs, including convenience stores (Cumming et al, 2021).

5. Key Areas of Fintech

Key areas of FinTech are Big data, cloud computing, blockchain, and artificial intelligence (AI). In contrast to the "natural intelligence" exhibited by people and animals, artificial intelligence is the intelligence expressed by robots. With technologies like voice recognition, natural language processing, and computer vision for user-account management and fraud detection, as well as machine learning techniques and deep learning networks for anti-money laundering and credit modelling, AI is playing an increasingly significant role in traditional banking. Cloud computing and mobile and internet payment methods are tightly related. In the last ten years, financial institutions all across the world have adopted cloud computing at an increasing rate.

6. The Disruptive Potential of Fintech

FinTech created possibilities for a number of small businesses providing financial solutions that were either superior to those provided by banks or in which the banks had no presence. These organisations could offer a variety of services at lower prices than enterprises with legacy infrastructure by utilising technologies like big data, machine learning, AI, and online platforms. Peer-to-peer lending and payments were popular items (P2P platforms match the lender and the borrowers and screen borrowers using algorithms and machine learning causing ease of decision making.) When it comes to FinTech products, mobile remittances are particularly well-liked by the expat community who wish to send money back home (Hadad & Hornuf, 2018).

7. Challenges and Remedies

FinTech businesses frequently deal with skepticism from financial regulators including issuing banks and the Federal Government in addition to well-established rivals. The federal Office of the Comptroller of the Currency now accepts applications from FinTech companies for special purpose national bank charters thanks to a policy statement the Trump

Administration released in July 2018. State laws pertaining to federally chartered banks are subject to federal preemption.

Due to the risk of hacking and the requirement to safeguard sensitive customer and company financial data, regulators are also worried about data security. Leading international FinTech firms are proactively utilising cloud technology to satisfy ever-stricter regulatory requirements. The Federal Trade Commission offers free tools to help businesses of all sizes uphold their legal responsibilities to secure sensitive data. Multiple lines of defence may help isolate and secure financial data, according to a number of private projects.

FinTech businesses operating in the European Union must abide by data protection regulations like GDPR. Companies must take proactive measures to secure users' and businesses' data or risk fines of up to 20 million euros, or up to 4% of an undertaking's entire annual global revenue. The Payment Services Directive (PSD2) and GDPR are two additional regulations that European financial institutions, including FinTech companies, must update their regulatory affairs departments with. As a result, they must arrange their income streams with privacy as their primary objective.

The reputation of a FinTech company can be destroyed by any data breach, no matter how minor (see to the Gramm-Leach-Bliley Act). Additionally, becoming a target of distributed denial of service extortion assaults is the online financial sector. Historical bank institutions also face this security concern because they provide Internet-connected consumer services. Due to the very high start-up costs of many FinTech technologies and the extremely low marginal costs of acquiring new consumers, many FinTechs are practically forced to operate as natural monopolies.

8. Findings

In the financial sector, digitalization will be the dominant trend. In some product categories, FinTech is a disruptive innovation, while in others it is a sustaining innovation. Factors like customer intelligence will show the revenue growth and profitability of a company/product because they are data and technology driven. AI and blockchain are the two fundamental forces behind finance solutions. The FinTech ecosystem's most effective deterrent will be cybercrime.

According to Christensen et al. (2016), not all disruptive innovations are effective, and the reason for this is based on a hypothesis they refer to as the "task to be done." They contend that businesses should concentrate on tasks for which customers are in need of solutions, and that any such solutions should be complemented by memorable experiences. Financial innovators that have acquired traction have been successful in spreading convenience and a strong client experience at significantly cheaper costs (PwC, 2016).

While most banks and financial institutions have competent IT teams that can manage platforms and upgrade them as needed, one fundamental weakness is that they lack cutting-edge IT capabilities and the vision to create disruptions. Therefore, the banks rely heavily on outside sources or experts to offer them solutions. This hinders them from pursuing disruptive breakthroughs with vigour.

According to the study, big e-commerce companies like Alibaba and Amazon, social networking sites like Facebook and Twitter, and mobile service providers are driving customers away from traditional banks by giving them access to non-banking platforms for payments and finance without requiring them to visit any other websites. The banks will be severely disrupted by this.

FinTech, according to several studies, shouldn't be seen as a disruptor but as a "stimulator" for the larger incumbents, encouraging them to concentrate on creating goods that consumers want or, if created well, will buy. In addition, working together rather than competing for a small market share is advantageous for both banks and FinTech companies.

FinTech seems to benefit from regulations. A number of new FinTech players come from the technology sector, and because their businesses are not subject to financial rules, they have an advantage over banks and other financial institutions when it comes to designing and delivering financial goods and services.

Retail banking and payments are two industries where disruptive innovation appears to be a distinct potential. But occasionally, it might be more of a sustaining invention than a disruptive one. These three industries—crowd funding, robo-advisory services, and peer-to-peer lending—involve truly disruptive developments.

The iGeneration, small enterprises, and underserved financial market segments are the client categories where FinTech should expect growth. Globally, millennials will experience the largest population growth, and they value the

convenience and pliability that financial services digitization offers. Traditional lenders are seen as risk-averse by small business owners, and they are reluctant to lend to MSMEs.

While the unbanked sector has limited access to financial services, mobile phone penetration is rather high. Therefore, mobile banking solutions are a service that FinTech firms may offer by utilising the entirely untapped market. Customers generally don't know much about FinTech solutions, which results in a slower rate of adoption.

FinTech has enormous promise, but it will depend on the entire financial ecosystem for its growth and development. Regulations must also be framed and prepared, and technology infrastructure must be compatible with the population being serviced while innovations are supplied to market segments.

9. Conclusion & Suggestions

Human needs are always changing, thus goods and services that are popular today could not be in demand tomorrow. When compared to the first Industrial Revolution, the changes seen during Industry 4.0 are ten times faster, 300 times larger in scope, and have a 3000 times greater influence on society. Widespread global connections, rapid technological advancements, urbanisation, and an ageing population have all served as this performance's disruptive agents.

Although FinTech goods are growing in popularity, banks continue to enjoy client trust because of the regulatory compliances that are in place and the fact that these establishments are large enough to survive through challenging economic times. Customers find FinTech intriguing because they can deliver solutions that are tailored to their specific needs, have excellent customer service, and offer digital capabilities that enable smooth transactions around-the-clock. They have great levels of accessibility, agility, cost effectiveness, and speed, but they are also susceptible to cybercrime.

The huge legacy institutions can overcome the obstacles provided by FinTechs by developing comparable internal facilities and cutting-edge services. While their physical services continue to run as they do, they can also start offering digital services to reach the untapped markets. Already, the Asian market is demonstrating the advantages of this. Working together with current FinTech businesses to combine talents is another option. The institution can set up its own FinTech services if that doesn't appear feasible in any particular market.

Numerous developments are currently being seen in the financial sector as a result of technology. Changes in client demands, demographics, and legislation are all driving financial services toward full digitization. FinTech directly leads to decreased costs and better efficiency. Due to its futuristic aspect, this idea will endure.

Compliance with ethical standards

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Author's short biography

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