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Application of Fintech in the Modern Banking Industry

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Abstract

This research paper explores the application of Financial Technologies in the modern banking industry. FinTech is a new world of artificial intelligence and machine learning technologies that boost the banking sector's capabilities. With this availability, the distinguished processes in the banks will have the potential to store big data and compute it efficiently. There will be cut-throat competition between the emerging banking leaders whom the huge companies will substantially influence as the power of FinTech applications will back them. This will result in revenue generation and maximum usage of available resources in various sectors like investment banking, trading, and various other verticals of Fintech. It is termed a disruptive innovation since it will bring many advancements in the modern banking sector.

Key Words: FinTech, Artificial Intelligence, Modern Banking, Financial Services, Technology

Introduction

FinTech, known as "Financial technology, " is now a highly used buzzword. It identifies some start-up business models and new technology that have the potential to transform the financial services sector. It is a brand-new sector that emerged from the previous market for financial fashion. FinTech businesses offer financial services by utilizing various high-tech technologies. An example of FinTech at work is the easy task of replacing paper-based processes with software and applications. The financial services sector is storming up with artificial intelligence. Approximately every financial technology company in the industry has already begun to use Artificial Intelligence to save time, reduce costs and add value. Artificial Intelligence will help optimize wealth, rising risk, generating lower revenues, trading, finance, banking, lending, and vertical FinTech services in the coming decade.

The breadth of FinTech activities began with peer-to-peer lending, crowdfunding, mobile payments, and money transfers before expanding to the more contemporary worlds of blockchain, cryptocurrencies, and robot investment. Customers are embracing new FinTech providers, with 50.2% of respondents to Capgemini and LinkedIn's poll stating they conduct business with at least one non-traditional firm. Few knowledgeable market observers believe that current FinTech-related investment is declining. Although capital raised by FinTech businesses climbed year over year, reaching $54.4 billion in 2018, the United Kingdom's October 2018 FinTech Global revealed that the number of deals completed decreased from 2219 in 2015 to 1187 in 2018 (finance.wharton.upenn.edu).

Payments and transfers, digital wallets, mobile and retail banking, trading and exchange (FX), capital markets, risk and compliance, security and privacy, financial advice services, and insurance firms are all possible applications for financial technology. FinTech businesses, unlike traditional banks with high overhead and obligations, cannot save money through innovation and adaptability. Smaller, agile, and cheaper than banks. Financial technology is generally described as any financial service's technical innovation. Industry players are designing innovations to disrupt conventional financial markets. This start-up piqued the interest of several start-ups, but many of the global central banks, like HSBC and Credit Suisse, built their versions. Artificial intelligence and big data are examples of the more advanced technologies fintech organizations utilize as payment solutions (Romanova & Kudinska, 2016).

Following the global financial crisis of 2008, the financial technology (Fintech) industry has emerged as one of the most rapidly expanding business sectors for start-ups looking to challenge incumbent banks. Banks may improve their competitive advantage by lowering expenses with the aid of fintech startups. Fintech companies have covered four key consumer segments. The Business-to-Business Segment establishes the first category (B2B). This group comprises large, well-known regulated financial services companies with varied value chains and long sales cycles. This second sector is also categorized as B2B and includes clients of financial companies, consultants, traders, investment managers, businesses, and SMEs.In the business-to-consumer segment (B2C), the third category is defined (www.icaew.com).

Small firms that bank differently and search for value and alternative funding sources are included in this sector. Consumers who prefer online banking to traditional banking and who are shopping around for the best price for their financial needs make up the final group in the B2C category. Customer experience is at the heart of the banking business because, since the global financial crisis of 2008, confidence in banks has declined, and more people are turning to nonbank financial institutions. Because of this, banks now have the chance to understand how embracing innovation and forming partnerships with start-ups may improve customer happiness and provide them a competitive edge to lessen their financial and legal restrictions.

FinTech offers tools and software to ensure the banking and financial services sectors run correctly. Start-ups have created these technologies and development companies to upend the established practices of banks and other financial service providers (Al-Ajlouni & Al-Hakim, 2019).

LITERATURE REVIEW:

According to a research paper, “A survey on fintech” by Gai, Qiu, and Sun, Fintech is a new buzzword that describes the adoption of new technology by the financial sector. It explained the five critical aspects of fintech for guiding future output: data-oriented tools, service, and equipment production, application, designs, the positionof service models, and protections for security and privacy. The paper emphasized moreon the data and security aspects of fintech. On the other hand, fintech also plays a vital role in the value chain of most FSIs (Financial Stability Institute). Applications of FinTech play a positive and constructive role in supporting financial firms. The FinTech applications consist of financial service efficiency and financial managementguidance. Web-based technology has driven FinTech applications into a dynamic, automated operating environment consisting of online purchases, data monitoring, real-time transactions, merchandise money laundering, quality control of communication, demand forecasts, and support for decision-making.

In the banking sector, the new customers focus more on connectivity services, specifically internet banking and mobile apps used to connect with their banks. The country's banking and financial sector have expanded significantly in recent years, thanks to technology. The indistinguishable feature of new banking is technological financing. Fintech firms concerned with banking technologies are often conventional banks' co-operators, offering them world-class connectivity services, as explained in the case in Poland in this research. Poland's FinTech industry is characterized by high creative potential. Most businesses are broadly financial networks that serve as outsourcers of their services. Despite cooperating with banks, two Pay-u and Blue Media firms can be recognized on the market (Trębacz, 2019).

FinTech companies running in the financial economy portray the latest, quite particularattribute of Para bank entities. They are distinguished by the growth and provision of conventional financial services by applying innovations. Without the network, digitalization, and compatibility of mobile devices, the provision of such services will not be feasible. This paper determines the significant reasons for competition and combines FinTech and banking. The study presents the modern developments in the growth of FinTech. It should be considered for describing the main variables of the banking sector's transition to the emergence of new business models and also b complexities of digital transformation in banks (Zveryakov et al., 2019).

Application of FinTech in the Modern Banking Industry

As it happened in the 18th century, the world underwent an industrial revolution; now, we are experiencing a data-driven digital revolution. With Artificial Intelligence (AI) emerging and Machine learning, new technologies that change how humans live are coming into play. Technology has a potential impact on every sector, including financial services. The rise of FinTech could be unfortunate news for conventional banking and big financial firms, and they should continue collaborating and working with FinTech firms to ensure digital development and progression. The banking sector is on the verge of disruption, much of which is led by simple disaggregation. It is observed that FinTech banks will rule the world given no time during the AI enablement. (seekingalpha.com)

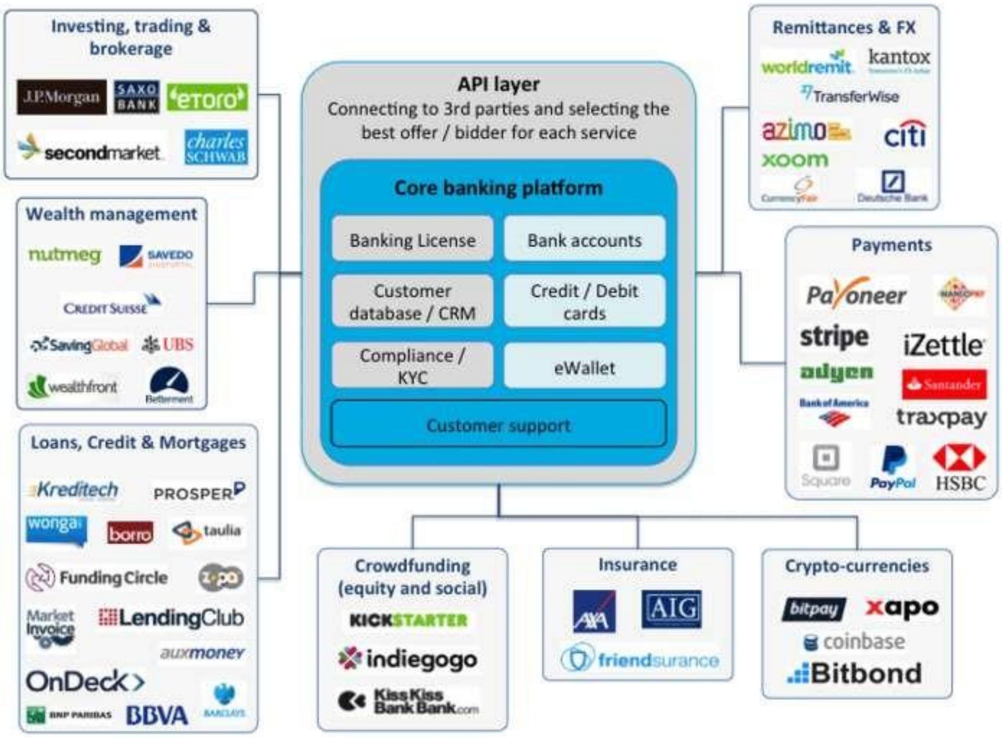

Figure 1: Core banking platform

Source: The Finanser

Crowdfunding- The extent of FinTech outside of traditional banking is best illustrated by businesses like Kickstarter, Patreon, GoFundMe, and many more. The platforms enable company owners and startups to raise money worldwide, overcoming local restrictions and connecting with global marketplaces and investors. Crowdfunding platforms have increased significantly in European Countries, with France, the Netherlands, Italy, and Germany taking the leads.

Blockchain and cryptocurrency- These are illustrative instances of fintech in action. Exchanges for cryptocurrencies like Bitcoin and Litecoin, such as Coinbase and Gemini, let users purchase and trade these digital assets. Nevertheless, blockchain services like Block Verify, which preserve provenance data on the blockchain, assist in reducing fraud in addition to cryptocurrencies. Cryptocurrencies are a potential new form of payment that is significantly safer than cash because of blockchain-based cryptography's invention. In practice, blockchain technology offers countless potential outcomes to challenge and transform conventional business paradigms. Blockchains and cryptocurrencies have, in fact, already provided significant advantages to leading enterprises in several industries. Some of these are reduced expenses, speedier transactions, more productivity, better traceability, improved security, and increased transparency. Smart contracts are a notable blockchain application that is currently in development. These are sophisticated, self-executing contracts that can electronically support, validate, and carry out claims. According to experts, these blockchain products will probably change how future transactions occur.

Peer-to-Peer: Peer-to-Peer lending platforms offer credits without bank interims for small business investments by individuals and firms. These platforms match borrowers and direct lenders: some allow borrowers to choose; other

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platforms often use it from lending packages and online auctions. Using big data to screen borrowers through algorithms, these platforms often provide the company's risk ranking (Saksonova & Kuzmina-Merlino, 2017).

P2P lenders are rising rapidly from a small base in the USA and the UK. Britain, France, and Finland are primary European borrowers for P2P loan lending. In China, P2P Company lending is widespread, but its position in the European Union is minimal.

Mobile Payments- One of the most often used FinTech apps and gateways is for mobile payments. These tools let users do financial transactions without going to an actual bank. Indeed, the worldwide dissemination of versatile installments is nothing brief of being phenomenal. FinTech companies continuously develop their products and services to serve customers better worldwide. Advancements are launching these breakthroughs in NFC, enhanced verification, and portable wallet technologies. A world without actual credit cards is rapidly approaching, even though a cashless society is still very far off in the future. It is great to undertake a few as FinTech tends to roll out unused highlights frequently (fintechsys.net)

Insurance- The insurance business has undoubtedly been impacted by fintech. Car insurance, house, and data protection are now included in insurtech. FinTech companies have joined the pricey safeguards market, but advertising offers far superior services than standard insurance. The majority of insurtech companies are involved in sharing insurance. Insurance technology companies are maximizing the use of creative protection apps to create more individualized safety net providers. FinTech is extending safeguards to the neglected masses, just like it does in its other companies. Companies in this area frequently work with conventional safeguards to automate protection measures and broaden coverage. Insurtechs have many areas to develop, from universal care insurance to wearable health safeguards. Eliminating cumbersome and time-consuming paperwork is essential to the growth of protection. Right now, anyone may get automobile insurance in a reasonable amount of time because of safeguards provided by fintech (www.deskera.com).

Robo-Advisors- Computer programs that produce consumer investment recommendations and use machine learning techniques are a cost-effective alternative to the recommendations of wealthy people. Additionally, adequately equipped robot advisors can avert some of the typical conflicts of interest that impact the industry. Regarding general financial advising, Robo advising is still very incipient and low, especially in Europe, where assets under management amount to less than 6% of those in the USA. Robo-advising in impact, portfolio administration has accomplished exceptional proficiency, counting bringing down its costs. Budgetary advisors can more efficiently and concurrently assess different portfolio options round-the-clock. No, consider that more and more Robo-advising services continue to appear. The development of stock-trading applications is another pervasive and incredibly innovative FinTech endeavor (european-economy.eu).

Budgeting Apps- Apps for budget-conscious customers, which have been increasingly popular over the years, are one of FinTech's most widely used applications in 2019.

Customers had to create budgets, gather checks, or go to excel spreadsheets in the past to keep track of their finances. However, the development of financial services applications enabled users to manage their income, expenses, and other budgeting tools, altering how people thought about their money.

People needed the time to analyze their expenses and create realistic budgets, frequently in a quiet area of their houses. Examining spreadsheets and searching through physical checks and receipts are standard methods of checking financial status. Today, budgeting applications have made tracking expenses and setting up budgets easier and more effective. A portable budgeting software for personal or business use may be one of the most widely used FinTech products. Budgeting apps enable anybody to advertise quickly and screen your expenses, pay, and other accounts successfully. These brilliant apps have changedhow customers see and perform their budgetary exercises. (Laahanen et al., 2019)

CHALLENGES:

Besides having significant advantages, Fintech has many problems to face. The possible list ofchallenges in the way of Fintech is as follows:

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1. **Security and privacy issue:** A tough bite for consumers is numerousfrauds resulting in the loss of money in online banking. Using technology, people's money is stolen by scammers, which has been a big problem for fintech companies. Cell phone safety can also be breached via payment apps such as Paytm and PayPal. Fintech firms must implement practical steps to secure customer data from unauthorized access, as customers can easily register a complaint about data protectionand privacy violations with regulatory bodies.

   In addition, since trust plays a vital role in acquiring emerging technology, preserving safety and confidentiality is one of its main concerns. It is assumed that regulatory bodies, consumer rights organizations, and fintechs continue going together to make fintech services a safe and value-adding user experience.

2. **Client Service Management problems:** As customers of Generations X and Y are more tech-savvy, by providing improved connectivity, comfort, and personalized products, fintech needs to address consumer needs better. Due to the introduction of fintech-basednetworks, it is more necessary to provide integrated client service management.

   For various purposes, many clients use several services from multiple fin-tech firms. For instance, when using Venmo to pay friends, customers can use PayPal to pay companies online. Fintech needs to recognize the niche market segment they are in and aspire to deliver the best quality experience in that market segment.

   Chatbots are developed to serve many individuals with low fees with a morepersonalized 24/7 service. However, the human aspect is still essential in financial services. Providing a customized service without a considerable price hike is challenging but essential for attracting and retaining customers.

3. **Regulatory issues:** Both conventional financial organizations and fintech firms face regulatory issues in capital needs, anti-money laundering, and safety and confidentiality. The cost of complying with regulatory regulations and competing with fintech start-ups may be significant for traditional financial institutions. Depending on their financial services, traditional financial institutions and fintech startups may be subject to additional regulatory obligations. As an example, the majority of banks utilize a certain kind of fractional-reserve banking system. There are strict and complex regulations governing the kind of loans that may be provided using the resources that a traditional bank owns (this excludes fintech start-ups that are not technically lenders, such as peer-to-peer lending companies. As regulatory measures lag behind the firm's progress, fintech businesses must be mindful of future changes that may affect them and find ways to cope with those changes (Chan, 2017).

4. **Risk Management Challenge:** In addition to the company's technology management, FinTech needs to emphasize managing risk. Since several fintech was established after the financial crash of 2008, they need to consider their liquidity and credit risks thoroughly. Due to the lower interest rates in the financial market, the current borrowing environment is significantly distinct from before. So, it is crucial for fintech engaged in lending to understand how they will be affected by the current lending situation.

   Latest lawsuits and various agreements resulting from the defective sales by top-tier companies of derivative instruments show that fintech would not be resistant to the liabilities arising from defective investing recommendations from chatbots.

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