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INVESTIGATING THE FACTORS DRIVING RAPID GROWTH IN FINANCIAL INNOVATIONS: A COMPREHENSIVE ANALYSIS OF DEMAND AND SUPPLY-SIDE INFLUENCES

Taranjeet Singh 1, Dr. Pavitar Prakash Singh 2

1,2 Department of Management, Lovely Professional University, Phagwara ,Punjab, India.
taranjeet_singh2003@yahoo.com

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ABSTRACT

Financial innovation offers cheaper and available services to financial system and it increases quality of service and products in a long run. The functions of financial innovation are decrease in the cost of payments and increase in the speed of determination of fraud, mechanism for the pooling of funds, management of uncertainty and controlling of risk, manages agency costs, and enhancement of liquidity. Technology contributes to the design and pricing of new instruments and facilitates the identification, measurement, and monitoring of risks in portfolios containing complex instruments. Innovation research has shown that the increase in countries' innovation performance plays a key role in economic and social development, prosperity, and development. Financial innovation is the most important driving force for the transition to the information economy. Globalization and global competition require innovation. Hence, the future is mobile and should be innovative. This paper throws some light on investigating the factors driving rapid growth of financial innovations.

INTRODUCTION

Financial innovation is the creation of new financial instruments, products, services, institutions, or markets. The innovations and use of digital technologies improve economic opportunity and promote financial inclusion.

There are various causes of financial innovations, such as:

- Technological advancements and payment system innovations.
- Competition
- Financial globalization
- Market failures, financial insecurity, domino effects, potentially high systemic risks, etc., trigger the need for innovation initiatives.

Many traditional banks are reinventing their business models to incorporate diverse digital channels, digitized financial services, and digital communications opportunities. The main purpose is to provide better service to customers and compete with venture-backed disruptors. It is challenging to accomplish, though, as most traditional banks follow the brick-and-mortar model and hold the disadvantage of having infrastructure not fit for the modern world.

The advantages and disadvantages of financial innovation are as follows.

Advantages

- Financial intermediaries benefit from economies of scale by bundling related financial services that can be delivered to the customers preferring a conveniently offered suite of products.
- The Internet and mobile technology have drastically increased the ability to inform and interact remotely between businesses and directly with customers. In addition, technology has increased access and the efficiency of direct delivery channels, offering lower-cost, tailored financial services and improving financial inclusion.
- Digital innovation reduces transaction costs and enables various innovative financial services and business models. The adoption of new technological advancements influences both traditional and emerging providers. Digital technologies can assist in lowering the costs of information collection, storage, processing, and exchange.

Disadvantages

- Fintech companies have de facto control over sensitive information. Users must be given more autonomy and control over their data.
- Fintech and big tech face cybersecurity challenges. Moreover, the attacks spread as interconnectivity expands and service disaggregation adds more links.
- The fixed-cost infrastructure of the technology does not reduce at the same rate as technology becomes obsolete. In addition, there are regulatory frameworks that are impeding the entry of new market participants [1].

The field of financial technology is currently receiving significant attention. The financial press seems to publish articles on its disruptive potential on a daily basis, the word "Bitcoin" has been formally added to the English language, and the total amount invested in FinTech throughout the world surpassed \$20 billion in 2017. The manner in which FinTech will change the character of the financial environment in the future is an important question. If we were able to provide an answer to that question, it would shed light on a course of action that regulators and supervisors may take to guarantee the security and reliability of the international financial system. However, providing an appropriate response to that inquiry is not simple at all. It may be helpful to gain a

grasp of some of the fundamentals of FinTech in order to comprehend its expansion and the excitement that surrounds it (Dwivedi et al., 2021) [2].

Economists employ the term ‘innovation’ in a strictly technical sense to describe unanticipated shocks to an economy (Tufano, 2003) [3]. Beneath this veneer of objectivity, however, there survives a tendency within the relevant literature to conceptualize these unanticipated shocks as “unforecastable improvements” (Miller, 1986, p. 460) [4]. Perhaps nowhere is this more clearly reflected than in the conventional economic view of financial innovation. Scott Frame and Lawrence White, for example, define financial innovation as “something new that reduces costs, reduces risks, or provides an improved product/service/instrument that better satisfies financial system participants’ demands.” (Frame and White, 2009) [5].

Financial innovation is the process of creating new financial products, services, or processes. Financial innovation has come via advances in financial instruments, technology, and payment systems. Digital technology has helped to transform the financial services industry, changing how we save, borrow, invest, and pay for goods.

While large banks continue to invest in mobile banking, FinTech companies, like Stripe, help small businesses conduct online payments, and investment broker Robinhood seeks to democratize investing and finance. These innovations have increased the number of financial providers available to consumers, borrowers, and businesses.

Financial innovation is a general term and can be broken down into specific categories based on updates to various spheres of the financial system. While the following is not an exhaustive list, major financial innovations have come in the raising of equity capital, remittances, and mobile banking.

- Investment Crowdfunding

Investment crowdfunding has begun to open up and make the process of raising equity capital more democratic. While investing in early and growth-stage companies used to be reserved for a privileged few (generally institutional investors), new infrastructure and regulations have allowed individual retail investors to invest in projects they are passionate about and/or have other connections to for a small sum. Individuals receive shares of the new company commensurate with the amount they have invested.

Two popular platforms for equity crowdfunding are SeedInvest and FundersClub. In addition, micro-lending platforms such as LendingClub and Prosper allow for debt financing similar to crowdfunding. In this asset class, instead of owning part of the company, individuals become creditors and receive regular interest payments until the loan is eventually paid back in full. Also, P2P lending marketplaces enable both people and companies to buy whole or fractional loans.

- Remittances

Remittances are another area that financial innovation is transforming. Remittances are funds that expatriates send back to their country of origin via wire, mail, or online transfer. Given the volume of these transfers worldwide, remittances are economically significant for many countries that receive them.

In the early 2000s, the World Bank established a database where people could compare the prices of different transfer services. The Gates Foundation subsequently began tracking remittances in 2011. Western Union and Moneygram once monopolized remittances; however, in recent years, startups such as Transferwise and Wave have competed with their lower-cost apps.

Given the onset of Bitcoin, Ethereum, Stablecoins, and Blockchain technology, remittances are becoming more affordable. The lower costs are in line with the Sustainable Development Goals (SDG) of the World Bank to reduce the cost of remittances from 7% to 3% by 2030.

- **Mobile Banking**

Finally, mobile banking has made major innovations for retail customers. Today, many banks like T.D. Bank offer comprehensive apps with options to deposit checks, pay for merchandise, transfer money to a friend, or find an ATM instantly. It is still important for customers to establish a secure connection before logging into a mobile banking app in order to avoid their personal information being compromised [6].

Demand and supply drivers of financial innovation

Financial innovations are growing at a rapid pace due to a combination of supply-side and demand-side variables. Adapting to shifting consumer demands and preferences is crucial from a demand perspective. The need for creative solutions is growing as people and organizations want for financial services that are more easy, effective, and customized. An increasingly tech-savvy populace that demands flawless digital experiences and mobile money management is driving this need. Additionally, traditional banks are under pressure to innovate in order to stay relevant and keep customers due to the rise of fintech firms and digital-first financial institutions.

Financial innovations are driven by technical developments on the supply side. Financial institutions may create new products and services, optimize operations, and better manage risks with the help of emerging technologies like blockchain, AI, and big data analytics. Additionally, the financial industry has seen an increase in entrepreneurial activities due to changes in regulations and a more favourable atmosphere for new businesses. Regulatory sandboxes, which offer a safe haven for trying out novel concepts, have made experimentation easier while yet maintaining a certain level of consumer protection.

A thriving ecosystem of financial innovations has resulted from the combination of the desire for more individualized and convenient financial services, the availability of cutting-edge technologies, and a supportive regulatory framework. Because of this, the financial environment is always changing, and new technologies that are changing how people and businesses handle their money include robo-advisors, digital payment systems, and peer-to-peer lending platforms. As long as supply and demand side factors continue to define the financial innovations landscape, the industry's rapid expansion is probably here to stay.

Technology frequently plays a role in financial innovations, and perhaps the most famous example is the automated teller machine (ATM). The first ATMs were developed in the late 1960s, and it was a technological development that enabled their creation. In particular, the British government issued a patent in 1966 for a technology that enabled a PIN code to be stored

on a card. Before that, the ATM was impossible. Less than a year after the patent was issued, the first ATM opened in London [7]. More recent examples of innovation where technology was an important supply factor include online banking, high frequency trading and mobile payments.

Regulation is another supply factor that is frequently present. For example, in the wake of the global financial crisis, bank supervisors in a number of countries encouraged their banks to move away from short-term funding. At the same time, other reforms decreased demand by money market funds for instruments that had longer tenors, like longer-term repo contracts. In response, the banks created collateralized commercial paper (CCP) [8]. CCP is commercial paper issued by a special purpose entity with the proceeds of the issuance used by banks to enter repo contracts. Money market funds can purchase the CCP, which is considered 'liquid' by the relevant regulations, and the banks issuing the CCP get the repo funding they wanted in the first place. Other examples of regulation contributing to financial innovation include the futurization of swaps [9], callable commercial paper [10], extendable repo [11] and evergreen repo contracts [12].

Some supply factors are more subtle. For example, it sometimes occurs that one innovation begets another innovation in a pattern that can lead to an 'innovation spiral'. In practice, this means that there can be a natural sequencing of innovations. For example, you cannot market an index of credit default swaps until the credit default swap itself has been created and the market for the credit default swap has become liquid enough that you can accurately track the price. In other cases, it means you cannot even imagine a product until the ones that come before it exist. For example, until someone has created a credit default obligation (CDO), it is difficult to conceive of someone creating a CDO-squared. As a result, you can think of innovation itself as a supply factor; when you get some innovation, you increase the chance that additional innovation will follow.

Changes to the financial or macroeconomic landscape can also be supply factors. For example, following the collapse of the housing market in the United States that preceded the global financial crisis, there was a significant rise in the quantity of real estate owned by banks and other financial institutions. This unusual situation led to innovation, with some of the financial institutions securitizing the rental income from the real estate they owned [13]. Financial institutions would have been much less likely to conceive of such a product if the housing market had not collapsed leaving them holding lots of real estate. Hence, the change in the macroeconomy contributed to the introduction of the new product. Another example of a problem that was at least partly created as a result of macroeconomic or financial conditions is double and triple-decker hybrid bonds, which were first created in Japan in response to the very low interest rate environment there [14].

These examples of supply factors – technology, regulation, the development of other innovations, and changes in macroeconomic and financial conditions – do not represent an exhaustive list, but rather are intended to give you a flavor for the types of things that qualify as supply factors.

Turning to demand factors, financial institutions can offer an array of new products and services, but the products will fail if there is insufficient demand. For example, some of the products listed as examples above, such as triple-decker hybrid bonds, no longer exist or have very small markets because of a lack of demand. As with supply, there are a number of factors that contribute to demand for innovation products and services, including regulation and demographics.

Regulation was listed as a supply factor, but it can also contribute to demand for new products and services. For example, the liquidity coverage ratio requires banks to hold a sufficient quantity of high-quality liquid assets to cover net cash outflows over 30 days. So, if a bank has issued a bond or commercial paper that is coming due within 30 days, the bank will have to hold assets to cover the impending outflow. This created demand for products that would not trigger the requirements of the liquidity coverage ratio. One of the products created to meet that demand was a product called callable commercial paper. This is commercial paper that can be issued for a term, such as three months, but which the issuer can call before it hits 30 days of remaining maturity. That means the banks that issues it can call the paper rather than have to hold assets against the future outflow. In this case the regulation created demand for a new product. (It also led to someone supplying the new product.)

Another demand factor is demographics. For example, an important driver of the move toward the adoption of mobile financial services, including mobile banking and payments, has been demographics. A quarterly survey conducted by the Federal Reserve found that as of the third quarter of 2016 only 18 percent of survey respondents over the age of 60 had used mobile banking in the prior twelve months, but 67 percent of respondents under the age of 30 had done so [15]. This result surprises few people, as it fits with the stereotype of the younger generations that have come of age with mobile technology and that are much more comfortable using the technology than the older generation. Similarly, a Federal Reserve Bank of Boston study found that users of Bitcoin and other virtual currencies tended to come from the younger generations [16]. Financial institutions are not blind to the demands of the younger generation, and they are responding to the demand with innovative products and services that the younger generation wants.

As with the supply factors, these two examples – regulation and demographics – do not represent an exhaustive list, but hopefully give you a sense for the types of things that qualify as demand factors.

REVIEW OF LITERATURE

Review of literature is the study of the prevalent materials related to the topic of research. This helps the researcher to get a clear idea about the particular field. It is further intended to serve as a means of exchanging information with the hope that it could prevent further duplications of the respondents to determine what is already known from similar research. The knowledge of other research literature is very important for researchers, to check their findings in line with the findings of the previous studies.

Financial innovation is defined as the emergence, diffusion, and popularization of new financial instruments, as well as new financial technologies, institutions and markets (Tufano, 2003) [17]. Frame and White (2004) [18] describe financial innovation as new financial products, services, production processes, and organizational forms that reduce costs, lower risks, or provide enhanced product/service/instrument that better meet market participants' demands. It has been shown in the literature that technology and finance innovation evolve together, and financial innovation is essential for sustaining economic growth (Laeven et al. 2015) [19].

Awrey (2013) [20] analyzes the demand-side and supply-side incentives for financial innovation. The demand-side incentive for financial innovation reflects rational response to market imperfections in the forms of taxation, regulation, information asymmetry, transaction costs, and moral hazard (Tufano 2003). For example, investors' demand for diversification, risk hedging, or higher yield in low interest rate period fosters the introduction of new financial derivatives and structured financial instruments. The supply-side incentive for financial innovation arises from financial intermediaries when they meet clients' demands, mitigate regulations' impacts, and recreate their monopolistic situation. With rational participants, financial innovation can benefit the financial system by enabling market completeness, mitigating market friction, boosting the quality and variety of financial services, enhancing risk diversification, and improving market efficiency (Beck et al. 2016) [21].

The benefit of financial innovation is challenged by the fact that market participants have different beliefs and make irrational decisions. These behavioral biases lead to speculation and failure of market self-correction, which increase risks in the financial system (Simsek 2013) [22]. Literature on financial innovation extensively discussed the growth–fragility tradeoff of financial innovation. Beck et al (2016) document a positive net effect of financial innovation on economic growth as well as a negative financial innovation–bank fragility association during crisis. On the dark side of financial innovation, Boz and Mendoza (2014) [23] find that financial innovation contributes to underpricing of risks in a new financial environment and leads to credit boom followed by sharp bust using a learning model of financial innovation. Fostel and Geanakoplos (2016) [24] show that financial innovations, in the form of changing promises and backing collaterals, will affect prices and lead to over- or under-investment, even when the fundamentals remain unchanged. Li et al (2018) [25] reveal that issuers make higher profit via designing new financial products that cater to investors' behavioral biases. Pérignon and Vallée (2017) [26] further point out that financial innovation can be driven by political incentive, which increase agency costs proxied by risk in local government debt.

In recent years, the term financial technology (fintech) has emerged as a new model for financial innovation that describes the fusion of finance and technology (Goldstein et al. 2019) [27]. Fintech covers an extensive bundle of technologies, including mobile networks, big data, cloud computing, distributed ledger technology, artificial intelligence, and data analytic techniques, amongst others, which shape a wide range of operations in financial industry.

Utilizing technology advances, fintech enhances financial inclusion and facilitates greater access to formal financial services of different customer groups. Given the high risk and difficulty on

information collection of underserved households and small and medium-sized enterprises (SMEs), Fintech provides solutions via digital financial services and enhanced risk assessment skills. According to CB Insights (2019) [28], digital banking businesses are specialized to serve specific sectors and demographic via B2C and B2B debit and credit extended to underbanked and unbanked individuals, household, and SMEs. In doing so, fintech not only improves the variety and efficiency of financial services, but also enhances access to financial services and financial inclusion [29]. A research by Oliver Wyman and MicroSave (2017) [30] estimates that digital financial solutions can address about 40% of unmet demand for payment services and 20% of credit requirements of poor households and small businesses in Asia.

Fintech can serve as a key driver of financial inclusion in emerging markets where financial inclusion level is lower compared with higher income economies [31]. CB Insights (2019) shows that customers in African emerging markets benefited from digital microfinance in the forms of mobile payment, microcredit and saving accounts. The Asian Development Bank (ADB) plays an important role in supporting financial inclusion using fintech across developing Asia. On SME financing, ADB-supported artificial intelligence-enabled credit score system helped more than 8,000 SME clients in the Greater Mekong Subregion to obtain credit of about \$50,000 per client by the end of March 2018 [32]. ADB also supported a cloudbased banking application in the Philippines and Branchless banking in Indonesia, which boosted financial inclusion in the Association of Southeast Asian Nations (ASEAN). As shown in the literature, financial inclusion contributes to human development (Sarma and Pais 2011) [33] and enhances financial stability (Hannig and Jansen 2011 [34] and Morgan and Pontines 2014) [35]. Developing Asia will benefit from the development of fintech.

Challenges associated with financial innovation

While innovation in the finance sector have benefits in terms of market efficiency, market completeness, and financial inclusion, it also brings regulatory challenges, such as speculations in the case of financial derivatives and structured instruments, and cybersecurity, technical vulnerabilities, data governance, as well as privacy protection in the case of fintech.

Balanced regulation stance will benefit the development of the finance sector. Regulators needs to monitor the risks associated with financial innovations to maintain resilience as well as prevent curbing innovations that will continue to foster financial development. Coordination among global or regional regulators are also called when tackling financial innovations in the global financial markets, such as crypto currency (Park et al. 2019) [36].

It is noteworthy that in the age of advanced technological developments, even the nature of deposits is changing. This prompts Braggion et al. [37] to investigate whether FinTech expansion could pose a threat for financial stability. Already today banks accept deposits and make transactions in a digital form. However, at the same time, this raises a number of issues, such as resilience, security and competition in payments, the way financial services are provided, the way and security of cross-border money transfers, but also raises the question of private and public money issuance.

According to Arner et al. [38], the global financial crisis in 2008 proved to be the most critical moment for the strengthening of FinTech financial technology and RegTech regulatory technology, as it stimulated all processes much faster. Indeed, as banks are unable to adopt right away new technologies due to regulatory restrictions [39] they have to rely at least for some time on obsolete infrastructure technologies. Therefore, advances in technologies are expected to benefit the FinTech companies more. However, according to Philippon [40], this advantage for FinTech companies does not show reduction in the intermediation costs of the banking sector. At a European level, during the crisis of 2008, the primary concern of ECB was to introduce effective measures, in order to achieve the key objective of financial stability in Eurozone [41] and thereafter to move towards the introduction and development of a strict and effective regulation framework for the operation of FinTech companies.

The growth of FinTech companies has strengthened more, after the global financial crisis of 2007. Estimates by Finances Online indicate that there are currently more than 12,000 FinTech companies operating worldwide [42]. The main target of FinTech companies is to offer in a friendly way financial products and services to their customers, in a more efficient, transparent and more automated way [43]. In another recent study, Broby [44] concluded that, in an increasingly digital world, trust will remain at the core of banking, which means that transformation of assets will continue to play an important role. However, the nature of banking and financial services is expected to change dramatically. The technological achievements and the importance on R&D expenditures is of paramount importance for every business in or out of the financial sector [45].

Mitra and Karathanasopoulos [46] examined the impact of financial technology on the relative value of the business in the banking sector. They found that financial technologies affect operational risk and thus companies must take into account the benefits but also the risks from implementing new technological innovations.

The term “FinTech” refers to companies that combine the provision of financial services with modern and innovative technologies, although the traditional banking sector has the potential for technological improvement and banks are working in this direction. However, in addition to the banking sector, there are FinTech companies that also offer insurance and financial instruments, either directly or as third parties. FinTech therefore includes companies that provide advance technology to financial service providers. However, it should be noted that there is a huge variation in the legislative and regulatory obligations that apply between banking institutions and FinTech companies [47].

According to the Financial Stability Board (FSB) [48], “FinTech is a new financial industry that applies new technology to improve financial activities, including processes, products or even business models”.

The development of FinTech can be divided into three main time periods [49]: The first is defined from 1866 to 1967 and focuses on the development of the infrastructure of economic globalization. The second refers to the period from 1967 to the outbreak of the international financial crisis and is characterized by the transition to digital technology. A hallmark of this

period is the emergence of ATMs (Automated Teller Machine), the foundation of NASDAQ as the world's first digital stock exchange and the World Bank Interbank Financial Telecommunications Company (SWIFT), which is a network of encrypted messages that transmit secure information and instructions.

Financial innovation and economic growth

The economic environment is massively motivated by rapid innovation, particularly the financial innovation in the system (Błach, 2011) [50]. The financial innovation plays an essential role in economic growth through supporting the financial presence, easing the financial operations in international trade, and improving financial proficiency. The financial system innovation in developing countries such as China, India and Pakistan, shows a prospect for enlargement of the financial sector (Napier, 2014)[51]. Through divergence of financial facilities, the financial innovation is revealed as an instrument for exploring the financial progress (Silve & Plekhanov, 2014) [52], High-tech development (Valverde, Del, & Fernández, 2007) [53], competent financial intermediation (Johnson & Kwak, 2012) [54] and therefore enhanced the economic growth. The improvement of the financial sector due to economic growth, efficient use of economic resources in the financial region, and escalation of productivity level in the system (Saad, 2014) [55], ultimately leads to economic growth.

The essential element of economic growth is an innovation because it introduced new concepts, mechanisms, and clarifications for existing difficulties. Most fundamentally, it changes business competitiveness and generates more value for the organization. It can be characterized as all of the financial, high-tech, systematic, and profitmaking activities, which is essential to construct new markets with value-added financial resources (OECD, 2004) [56]. The innovation is not only the formation of different things but also doings as the solutions for the economic complications (Kotsemir & Abroskin, 2013) [57]. The financial innovation increases the value of financial products and facilities (McGuire & Conroy, 2013) [58], increases the capital accretion and allocation practices (Uddin, Rahman, & Quaosar, 2014) [59], advances the practices of financial development and increases the effectiveness of financial organizations. Therefore, the proficiency of financial organizations has an influence on financial development over the enhanced way of transactions that accelerate international and national trade (Sabandi & Noviani, 2015) [60]. In the financial system, institutional innovation accelerates the procedure with developments such as mobile and internet banking services, NGOs, microfinance organizations and the high-tech organizational procedures (Battilana & Dorado, 2010) [61]. All of the innovations expand the economy by inclosing individuals in the course of economic improvement (Siddiqui & Ahmed, 2009) [62].

Financial innovation is neither restricted to the innovation of new financial instruments nor innovation by financial institutions (Michalopoulos et al., 2011) [63]. Financial innovation contains more ordinary financial improvements, such as the improvements in data processing and credit scoring that enhanced the capability of different financial institutions to evaluate borrowers, and the implementation and upgrading of private credit departments. The theory of economic development in 1912 emphasized the main role of financial intermediaries in

innovation and economic development (Mishra, 2008) [64]. In an online debate organized by The Economist on whether the financial innovation can improve the growth or not, moderator Beddoes (2010) [65] revealed that the last two decades demonstrate that financial innovation is essential for persistent economic growth.

Financial development can take place with different financial innovations, such as the development of the financial market and banking sector. The well-functioning capital market and banking sector contribute to the economic progress (Ndako, 2010) [66]. According to Adusei (2013) [67] the well-developed financial intuition and capital market both play an essential role in sustainable progress by allowing productive investment. Therefore, in turn, accelerate economic growth, but the financial development is subject to the economic situations. The development of the financial sector allows people access to more institutional credit for investment (Uddin & Chakraborty, 2009). Credit from the financial firms is yet to have a greater influence on promoting the overall economic growth. The progression of the financial market is considered to be a channel of efficient mobilization of economic funds. The well-functioning capital market plays a main role is sustainable economic development by the adoption of financial innovation in the economy (Levine, 1997) [68]. After all, an efficient financial system is the outcome of continuous financial innovation, which allows for the emergence of different financial institutions, especially banks with improved financial services and more credit facilities, liquid cash, which ultimately leads to economic growth (Ben Jedidia, Boujelbène, & Helali, 2014) [69].

The importance of finance and innovation on economic growth have long been established. Therefore, the role of financial sector in economic growth, irrespective of whether is serve a demand or supply function, is believed necessary for the economic performance. In parallel, the technological innovation is also documented as an important element of economic growth. Consequently, financial innovation, which contains two main elements of economic growth, finance and innovation, should be an area of the high research interest. Therefore, to date research the influence of financial innovation on the economic growth remain negligible at best (Beck, Chen, Lin, & Song, 2012) [70]. The two opposing views of influence of financial innovation on its economic impact. On the one hand is the innovation-growth view, explain that the financial innovation optimizes the process of financial intermediation and stimulates the economic growth, on the other hand the innovation-fragility view, and instructs that financial innovation lead to a greater fragile and weak financial system, therefore hindering the economic growth (Beck et al., 2012).

SIGNIFICANCE OF THE STUDY

This study, "Investigating the Factors Driving Rapid Growth in Financial Innovations: A Comprehensive Analysis of Demand and Supply-Side Influences," is important because it can provide light on the always changing financial markets. A number of factors that have changed the way financial services are provided and used have led to an extraordinary innovation boom in the financial sector in recent years. Comprehending the fundamental factors propelling this swift

expansion is crucial for various stakeholders, such as legislators, financial institutions, investors, and customers.

From a demand perspective, an extensive examination might reveal shifting customer behaviors and preferences, allowing companies to customize their offerings to suit changing requirements. Additionally, understanding the driving forces behind consumer adoption of these advances can help advance financial access and knowledge, especially for marginalized groups.

On the other hand, fintech companies and financial institutions can benefit greatly from supply side analysis. Their product development and commercial strategies might be guided by its ability to identify upcoming trends and competitive advantages. A deeper comprehension of how innovations affect the stability and integrity of financial systems can also be beneficial to regulators and policymakers, as it can guide the development of efficient regulatory frameworks.

This study can aid in the development of a more comprehensive understanding of the financial innovation landscape by integrating supply-side and demand-side factors in a thorough examination. This information is important for both ensuring that the financial sector continues to serve society's best interests while embracing technology improvements and optimizing corporate strategy. In light of this, the study's importance rests in its capacity to influence choices and shape the future of financial services during a period of rapid innovation.

OBJECTIVES OF THE STUDY

- To pinpoint the primary factors and catalysts that are fueling the rapid growth of financial innovations, both from the demand and supply sides of the financial industry.
- To understand how consumers are responding to financial innovations, including their preferences, motivations, and barriers to adoption.
- To examine the strategies and innovations introduced by financial institutions and fintech companies, and how they are shaping the supply side of financial innovations.
- To assess the impact of regulatory and policy measures on the growth of financial innovations, including their role in fostering or constraining innovation in the financial sector.

RESEARCH METHODOLOGY

The research methodology of any given study serves primarily to clarify and direct the steps used to amass the necessary information. Primary and secondary data collection are the two most common approaches to gathering information. Primary data refers to information that has been gathered firsthand by the researcher themselves. Since the researcher has complete access to the data, he or she may verify its veracity and quality with ease. In order to approach respondents and collect information from them, the researcher needs to have strong interpersonal skills, and good communication skills are also necessary to ensure that respondents comprehend the researcher's inquiries. This aids in accurate monitoring of data collection processes as well. Primary data collecting aids in doing in-depth research into a topic by revealing any potential response or non-response biases.

Taranjeet Singh / Afr.J.Bio.Sc. 6(Si2) (2024)

The research methodology employed in this study, "Investigating the Factors Driving Rapid Growth in Financial Innovations: A Comprehensive Analysis of Demand and Supply-Side Influences," is designed to provide a thorough and balanced exploration of the complex landscape of financial innovation. A mixed-methods approach combining quantitative and qualitative research techniques will be used to accomplish this.

The process of quantitative research entails gathering and evaluating numerical data in order to evaluate the scope and influence of financial innovations. A wide range of professionals, specialists, and users of financial services will receive surveys. These surveys will gather important data about consumer preferences, behaviors, and the uptake of financial innovations. To measure the expansion and impact of financial innovations over time, other financial data will be examined, such as market trends, investment amounts, and adoption rates. For purpose of analyzing impact of financial innovations on product and consumer segments random sampling technique is used to gather the data from 200+ respondents of different demographic profiles.

The quantitative approach will be strengthened by qualitative research approaches that explore the subtleties of supply-side and demand-side factors. We'll be doing in-depth interviews, focus groups, and content analyses of relevant papers, including financial reports and regulatory documents. These qualitative techniques will aid in identifying the underlying motivations, challenges, and the context that surround financial innovations.

To strengthen the research's reliability and comprehensiveness, a comparison analysis will be conducted to cross-reference and validate findings from both quantitative and qualitative data sources.

Strict adherence to ethical rules and privacy standards will be maintained throughout the research procedure. Every participant will be asked for their informed consent before any data is collected, and to ensure confidentiality, data is anonymised and stored safely.

A comprehensive understanding of the factors driving the rapid growth of financial innovations is anticipated through this multidisciplinary research approach, providing insightful information to a broad spectrum of financial industry stakeholders, including businesses, consumers, regulators, and policymakers.

CONCLUSION

In conclusion, the impact of financial innovations on banks has been transformative and multifaceted, reshaping various aspects of their operations. The swift and simplified transactions facilitated by these innovations have significantly accelerated delivery speed, enhancing overall efficiency. Notably, the reduction in human errors and operational mistakes has contributed to a more reliable and secure banking environment.

Furthermore, financial innovations have played a pivotal role in elevating the quality of banking services, paving the way for superior client experiences. The ongoing technological advancements in the financial sector, exemplified by the advent of 24/7 banking, underscore the industry's commitment to providing continuous and accessible services.

One of the notable benefits of these innovations is the simplification of transaction processing, which has, in turn, reduced overall complexity. This streamlined approach not only improves the ease of conducting transactions but also contributes to a more user-friendly and efficient banking system.

Overall, the positive impact of financial innovations on banks is evident in the enhanced speed, reduced errors, improved service quality, and ongoing advancements that collectively define the trajectory of the financial sector. As banks continue to embrace and integrate these innovations, the outlook for providing seamless and superior services to clients appears promising.

The rapid growth in financial innovations can be attributed to a dynamic interplay of factors on both the demand and supply sides of the financial ecosystem. On the demand side, the increasing need for accessible, efficient, and cost-effective financial goods and services has been a key driver. Financial innovations have responded to this demand by expanding access, introducing new products, altering delivery mechanisms, reducing costs, and creating new market opportunities.

Micro drivers further amplify this demand, with specific industries witnessing unique trends. For instance, the retail banking sector experiences a growing demand for digital payment and mobile banking solutions, while the investment management industry sees a rise in popularity of robo-advisors and automated investing. Commercial banking, on the other hand, is witnessing an increasing need for trade finance and supply chain financing options.

The complex interplay of variables such as changing customer requirements, technological advancements, regulatory changes, economic conditions, and competitive forces contributes to the evolving demand for new financial products and services. Financial institutions positioned for success are those that comprehend these forces and leverage that understanding to create innovative solutions that align with customer needs.

Furthermore, in a globalized economy, financial innovations play a crucial role in empowering individuals and businesses, fostering financial inclusion, and democratizing the financial system. It is essential to ensure that these breakthroughs are widely accessible, mitigate potential risks, and maximize their positive societal impact.

However, ethical considerations must be taken into account. By prioritizing consumer protection, promoting responsible financial practices, and championing financial inclusion, the benefits of financial innovation can be maximized while mitigating associated risks. A demand-side approach that empowers consumers with knowledge, choice, and protection is necessary to ensure that financial innovation serves the diverse needs of individuals and communities.

The transformative impact of mobile banking and digital payments on the demand for traditional banking services underscores the evolving landscape, presenting both challenges and opportunities for banks that can adapt and embrace the shifting market dynamics. Overall, the trajectory of financial innovations is deeply influenced by the dynamic interplay of demand and supply-side factors, shaping a landscape where adaptability and responsible innovation are key to sustained success.

Cryptocurrencies and blockchain technologies represent another frontier that traditional financial institutions must navigate. Embracing disruptive technologies becomes imperative for these institutions to remain relevant and competitive in an ever-evolving financial ecosystem.

As the aging population grows, so does the demand for retirement planning products and services. Conventional financial institutions must continually enhance and expand their offerings to meet the evolving needs of this expanding market, ensuring they remain agile in the face of demographic shifts.

Environmental challenges, particularly those related to climate change, call for the active involvement of the financial sector. Financial institutions can play a crucial role in mitigating risks and promoting a sustainable future by introducing novel products and services that align with environmental goals.

The convergence of economic, technical, regulatory, and competitive forces is fostering supply-side financial innovation. This dynamic environment prompts financial institutions to explore inventive methods to meet client demands, compete with rivals, and comply with regulatory obligations. The future promises continued developments in financial technology as institutions strive to stay ahead in this rapidly evolving landscape.

The impact of financial innovations on the profitability and competitiveness of financial institutions is undeniable. Collaborations between traditional financial institutions and fintech companies have become mutually beneficial, allowing institutions to enhance their offerings and operations while providing fintech firms access to a broader customer base. These partnerships drive innovation, improve the overall client experience, and create new avenues for growth and cooperation. Looking ahead, we can anticipate even more creative collaborations to emerge as technology continues to advance, shaping the future trajectory of the financial industry.

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