วารสารวิชาการ วิจัย และนวัตกรรม มสธ. (มนุษยศาสตร์และสังคมศาสตร์)
STOU academic Journal of research and innovation (Humanities and Social Science)
ปีที่ 2 ฉบับที่ 2 (กรกฎาคม – ธันวาคม 2565) Vol. 2 No. 2 (July – December 2022)

Received: July 25, 2022
Revised: August 13, 2022
Accepted: August 20, 2022

The Rise of Fintech: A Review Article

Pongsakorn Limna[1]
Tanpat Kraiwanit[2]

Abstract

This study aimed to evaluate the literature on the elements of fintech and its trends. A narrative synthesis was used in this review article. The documentary method and content analysis via systematic review were used to analyze the data. The results indicated that fintech is a critical type of digital technology. It has played a significant role in the transformation of financial markets and is a rapidly rising segment of the financial services industry. This review article may lead to a better understanding of fintech, as well as its trends and elements. It may assist business owners, managers, marketers, and employees in the financial industry or any sector to achieve and improve high business performance by implementing appropriate strategies to meet the needs and expectations of firms and clients through the use of fintech. Qualitative research, such as interviews, and quantitative research, such as questionnaires, may be developed in the future to provide more explanations and explicit findings.

Keywords: Digital Technology, Fintech, Rising, Element, Review

[1] *ORCID ID: orcid.org/0000-0002-7448-5261*
Ph.D. in Digital Economy Program, Faculty of Economics, Rangsit University
[2] *ORCID ID: orcid.org/0000-0002-5130-6427*
Ph.D. in Digital Economy Program, Faculty of Economics, Rangsit University

Introduction

Innovative technologies are emerging and changing the world. The availability of an internet connection with smartphone-enabled services has simplified access to high-speed technological advancements for a wide range of people. The concept of industry 4.0 denotes major changes to the economy and society, with technological changes all over the world reforming internal and external application models for better interactions in the digital process (Kumari & Devi, 2022). In addition, the economy is primed for new and emerging forms of consumption. This is the result of a convergence of technological, economic, and sociocultural phenomena that is currently changing traditional forms of commercial exchange (Ertz & Boily, 2019; Limna etal., 2022). Financial technology, or fintech, is the use of technology to design and deliver financial products and services. It has an impact on financial institutions, regulators, customers, and merchants in a variety of industries. Pervasive digital technologies are challenging the fundamentals of the highly regulated financial sector, resulting in the rise of non-traditional payment systems, peer-to-peer money exchanges, and increased volatility in currency markets (Leong et al., 2017). Moreover, fintech is altering the way financial services are perceived, developed, promoted, delivered, and consumed (Mention, 2021). Fintech innovation emerged after the 2008 global financial crisis, combining e-finance, internet technologies, social networking services, social media, artificial intelligence (AI), and big data analytics. Fintech startups set themselves apart from traditional financial institutions by providing personalized niche services, data-driven solutions, an innovative culture, and a lean organization. While fintech is widely regarded as a threat to traditional financial institutions, it also offers numerous opportunities for these institutions to gain a competitive advantage over competitors. As a result, most major financial institutions have begun to take fintech seriously, developing strategies to compete, coexist, and collaborate with fintech startups (Lee & Shin, 2018). Fintech is a rapidly expanding industry that benefits both consumers and businesses in several ways. In essence, fintech is on the rise (Karim et al., 2022; Nathan et al., 2022). Hence, fintech is a critical topic to study. To increase the understanding of fintech, this study provides an overview of its elements and trends.

Literature Review

1. Fintech

Definitions of what fintech exactly is differ widely. However, a variety of scholars have attempted to define fintech using their own interpretations based on the results of the studies they have reported (Al-Mudimigh & Anshari, 2020). The term fintech has been used in a variety of business contexts, often inconsistently and ambiguously (Schueffel, 2016). Financial technology, as known as fintech, is widely recognized as one of the most significant innovations in the financial industry, and it is evolving at a rapid pace, aided in part by the sharing economy, favorable regulation, and information technology (Lee & Shin, 2018). Fintech is a new technology that aims to improve and automate the delivery and use of financial services (Al-Okaily et al., 2021). Fintech can serve as an innovative reference in assisting businesses to rethink their business models or even to suggest new businesses (Leong & Sung, 2018). Fintech can also refer to businesses that provide financial services using cutting-edge technology. In addition to offering digital goods and services specifically created for the banking and financing industry, fintech is also in charge of distributing insurance. These fintechs are frequently referred to as InsurTechs. Additionally, it might provide a variety of third-party services, such as offering technical assistance to providers of financial services (Al-Mudimigh & Anshari, 2020; Dorfleitner et al., 2017). Payments, wealth management, crowdfunding, lending, capital markets, and insurance services have been identified as six fintech business models (Giglio, 2022).

The financial technology revolution is having a significant impact on consumer behavior and perceptions (Goel et al., 2022). The growth of investment in fintech has been phenomenal. Fintech introduces a new paradigm in which information technology drives financial industry innovation. It is being heralded as a game-changing, disruptive innovation capable of upending traditional financial markets (Lee & Shin, 2018). Hence, fintech has been extremely crucial to financial services industry innovation since its inception. Fintech development is an ongoing process that has resulted in numerous incremental and disruptive innovations (Schueffel, 2016). Furthermore, companies that offer financial services using technology make up the fintech sector. Fintech firms are important because they offer services that both individuals and businesses can use to simplify financial transactions. These services include peer-to-peer payments, online investing, and mobile banking (Lee & Shin, 2018; Soloviev, 2018). In addition, fintech has significantly reduced costs, and fintech-adapted companies can attract significant investments as they are far more capable than traditional banks due to lack of overheads and responsibilities. Their overall size grows and adapts in ways that larger corporations can only dream about. Crowdfunding, mobile payments, and foreign fund transfers are transforming small business start-ups and spreading globally, making it easier than ever to start and run a business (Goel et al., 2022).

2. Fintech Ecosystem and Its Elements

The fintech ecosystem is a complex network of interactions between fintech startups, regulators, investors, government, and talented institutions who all have an interest in the fintech startups ecosystem (Siddiqui & Rivera, 2022). Fintech ecosystems are distinguished by a heterogeneous, non-linear, dynamic, and complex network of agents that interact with one another to provide end customers with a diverse range of financial products and services. The complexity of fintech ecosystems is increasing exponentially with the rise of myriad complementary technologies, as new players emerge and new connections are formed (Muthukannan et al., 2020). Thus, to understand the competitive and collaborative dynamics in fintech innovation, it is critical to first analyze the ecosystem. A thriving symbiotic fintech ecosystem is vital to the growth of the fintech industry. The fintech ecosystem comprises five components, as shown in figure 1, including fintech startups, government, technology developers, financial customers, and traditional financial institutions (Lee & Shin, 2018). These types of fintech ecosystem collaboration not only fuel innovation, but also add value to the economy and increase financial industry competition. Ultimately, this will benefit financial industry consumers (Albarrak & Alokley, 2021).

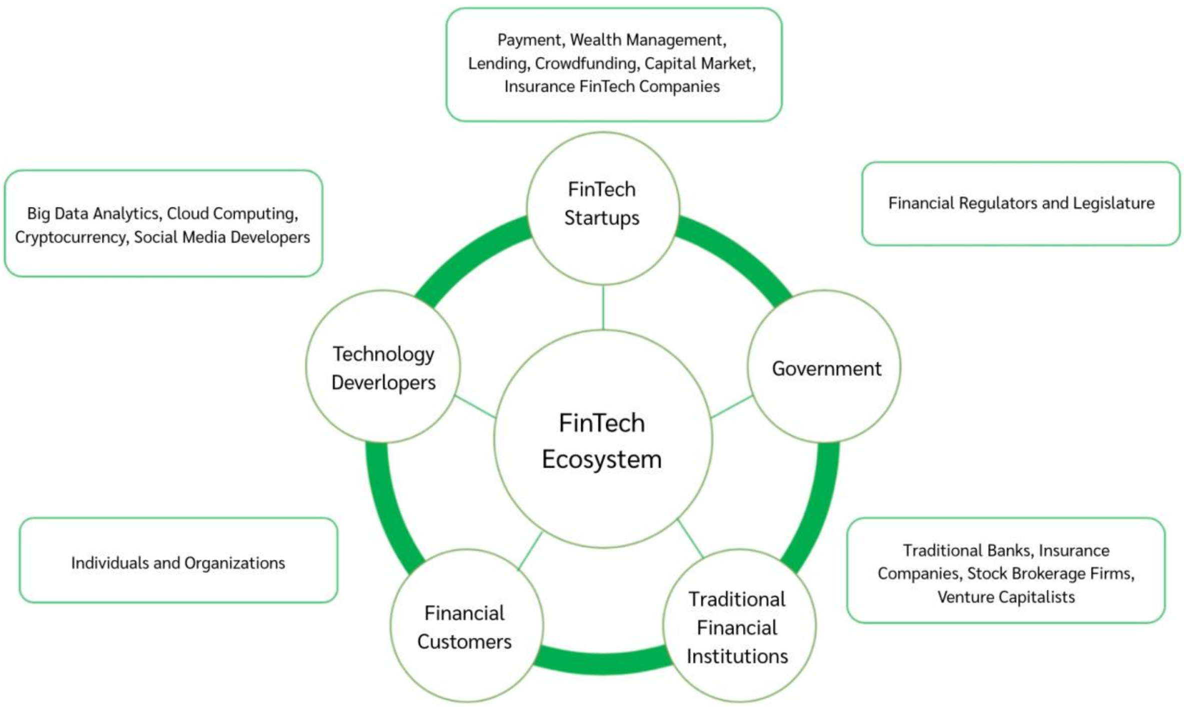

Figure 1: The Five Elements of the Fintech Ecosystem (Lee & Shin, 2018)

2.1 Fintech Startups

Fintech startups are new technology-based companies that provide innovative financial solutions. As these companies are responsible for the industry's technological advances, they should be regarded as the ecosystem's focal point. Moreover, many elements of fintech startups' businesses directly impact the consumer in the financial value chain, such as the use of digital channels and a focus on meeting niche market needs through customized services (Castro et al., 2020). Fintech startups are central to the ecosystem. These companies, which are mostly entrepreneurial, have driven major innovations in payment, wealth management, lending, crowdfunding, capital markets, and insurance by incurring lower operating costs, targeting more niche markets, and providing more personalized services than traditional financial firms. They are driving the phenomenon of unbundling financial services, which has been extremely disruptive to banks (Lee & Shin, 2018).

2.2 Governments

Governments globally are recognizing the rise of fintech to deliver more effective and efficient social and economic outcomes. Government support is necessary for the healthy development of the fintech sector, which has the potential to revolutionize financial services products, services, and delivery mechanisms around the world, as well as deliver more effective and efficient social and economic outcomes (Pollari, 2017). Due to the 2008 economic crisis, governments and regulatory agencies strengthened regulations, emphasizing transparency in an effort to reduce fraudulent behavior and protect consumers (Castro et al., 2020). Governments and regulatory agencies can have a positive impact on various aspects of the ecosystem, such as by simplifying trade regulations or lowering taxes and duties. Governments and regulatory agencies, on the other hand, can have a negative impact by, for example, enacting more stringent and bureaucratic regulations (Diemers et al., 2015). In order to stimulate fintech innovation and facilitate global financial competitiveness, different governments provide different levels of regulation for fintech startups, depending on national economic development plans and economic policies (Lee & Shin, 2018).

2.3 Technology Developers

With the advance of information technology, technology developers not only create digital platforms for social media, big data analytics, cloud computing, artificial intelligence, smart phones, and mobile services, but also foster an environment that allows fintech startups to quickly launch innovative services (Castro et al., 2020). The relationship between technology developers and the fintech ecosystem is vital because they are one of those responsible for creating a beneficial environment that allows fintech startups to launch innovative services, which guarantee revenue sources for the developers (Lee & Shin, 2018). For example, cloud computing enables fintech startups to rapidly deploy online platforms while avoiding infrastructure capital investments and, if necessary, to scale elastically. Moreover, advanced scoring systems, algorithmic trading strategies, and robo-advising systems are being developed using artificial intelligence (AI) and data processing technologies, resulting in better customer service. Social networks also foster the growth of communities, such as peer-to-peer lending communities. Mobile payment and banking infrastructure can be provided by mobile operators. As a result, the fintech industry generates significant revenue streams for technology developers (Soloviev, 2018).

2.4 Financial Customers

Financial customers are critical as they generate revenue for fintech companies. While large organizations are important revenue generators, individual customers and small and medium-sized businesses (SMEs) are the primary revenue generators for fintech companies. A substantial percentage of fintech customers are members of generation Y and Z, which is advantageous for fintech because technologically advanced members of this generation will constitute the majority of the population in the coming decades (Lee & Shin, 2018; Soloviev, 2018). In addition, the ability to identify customer needs is a key feature of fintech startups. Fintech startups strive to meet the needs of market niches by providing high-quality and personalized services. This approach is important for acquiring new clients because customers weigh the benefits and risks of fintech's services before using them. Customer satisfaction and customer loyalty, including word-of-mouth (WOM) communication, can also be critical for fintech startups to succeed in such a competitive industry (Castro et al., 2020). Thus, fintech startups must use integrated customer service management to ensure proper use of the various channels through which they interact with their users, as customers are already accustomed to having constant access to their financial information (Alt et al., 2018; Lee & Shin, 2018).

2.5 Traditional Financial Institutions

Traditional financial institutions are critical to the success of fintech ecosystems. After the first impact of fintechs emergence in the financial sector, traditional financial institutions have been reviewing their business models and developing new strategies to innovate, particularly through the use of technology (Lee & Shin, 2018; Soloviev, 2018). Although traditional financial institutions initially saw fintech startups as a threat, they have recently begun to collaborate with those new companies through acquisitions and the establishment of in-house incubators to create new services with lower operational costs and more competitive prices. Traditional financial institutions' collaboration with fintech startups may spur innovation and strengthen the latter's competitive position (Castro et al., 2020).

3. The Rise of Fintech

As consumers increasingly turn to digital forms of managing their finances, the fintech industry is rising (Khalatur et al., 2022). Fintech is the use of cutting-edge technology to improve financial operations. It is used to automate and simplify these operations, improve productivity and quality, and reduce human interactions. Fintech services help businesses grow. Fintech payment is widely used to conduct financial transactions electronically via a variety of channels and products. Fintech is used to advance payments by incorporating technology into credit and debit cards, continuously improving mobile and online payments and banking, incorporating new features into automated teller machines (ATMs), and allowing customers to set up digital wallets. Furthermore, during the COVID-19 pandemic, there was an increase in the use of Fintech payment technologies (Alchuban et al., 2022; Pallathadka & Pallathadka, 2022). Fintech firms now play an important role in the digital finance economy. The banking industry continues to be on the cutting edge of digital innovation. Individual users can expect reasonable, useful, and secure banking services from digital finance. Digital finance has begun to improve user services because of digital banking innovations. With today's technologies, digitalization has also altered the current economic system. Fintech providers are developing new financial services and products to aggregate the functions of banks for their customers. If successful, this will undoubtedly alter the current financial services business landscape (Goel et al., 2022; Kumari & Devi, 2022).

Although the fintech industry in the United Arab Emirates (UAE) is still quite nascent, it is steadily growing. The UAE is the Middle East and North Africa's largest fintech startup hub. Fostering healthy fintech ecosystems is regarded as a critical component of economic diversification. Several investment funds have emerged over the years that play an important role in the global fintech investment ecosystem. Six funds have emerged in Bahrain and the UAE since late 2017, focusing on partnerships with other ventures or direct investment in innovative firms. In total, those funds raised approximately $1.5 billion in capital. Several of these fintech-related funds have only recently begun to shift their focus away from external opportunities and toward emerging opportunities within the region (Al Suwaidi et al., 2022). In addition, with a population of approximately 1.3 billion people, India is a growing fintech market. The fact that the majority of the population is bankless makes India an exciting global space for financial technology. Fintech is regarded as a game changer and disruptive innovation capable of upending traditional financial markets. Fintech has grown rapidly in India over the last five years and is expected to grow further in the coming years (Sharma et al., 2022). In Thailand, fintech startups have a better chance of growing and developing when they collaborate with companies in both similar and dissimilar industries. The concept of flying solo limits the ability of startup firms to improve their risk and return situation. Furthermore, cooperation from the government and related public authorities in terms of providing feasible policies is required and beneficial to both fintech startup firms and users accessing their financial products and services. The centralization of related entities may have an impact on the opportunities and challenges that fintech firms face. Strategies for establishing a national technology system and financial regulations that can support the growth of FinTech startups and increase the confidence of FinTech users must be considered (Kijkasiwat, 2021). Moreover, fintech represents a transformational opportunity for China's financial system and others. A large number of cryptocurrencies have been created around the world to help with faster payments and financial inclusion. The People's Bank of China (PBOC) believes that introducing a central bank digital currency (CBDC) would be a significant step that would improve its international role and help transform the international economic order in the long run (Allen et al., 2022).

Methodology

Narrative synthesis is the process of conducting a systematic review and synthesis of findings from multiple studies that heavily rely on words and text to summarize and explain the synthesis's findings (Limna et al., 2022). Hence, this systematic review employed a narrative synthesis. Five databases were used, including EBSCO, Google Scholar, Scopus, Web of Science, and ScienceDirect. The inclusion criteria were studies 1) that clearly defined FinTech, 2) that were published in English, and 3) that were peer-reviewed. The data were reviewed between February 15th, 2022, and June 15th, 2022. To search the database, the researchers identified a set of keywords related to fintech. The identified keywords were “fintech,” “financial technology,” “fintech ecosystem,” “elements of fintech ecosystem,” “fintech startup,” “government,” “technology developers,” “financial customers,” “traditional financial institutions,” and “the trends of fintech”

The qualitative research method consists of four primary research steps, which include research design, data collection, data analysis, and report writing. Content analysis is an adaptable data analysis technique for conducting qualitative systematic reviews by systematically and objectively describing specific phenomena and drawing valid conclusions from verbal, visual, or written data (Limna et al., 2022; Siripipattanakul et al., 2022). Therefore, in this review article, a qualitative – content analysis was employed.

Results

The incorporation of technology into the delivery of financial services has altered many business operations. Fintech, or financial technology, is an important type of digital technology. It has played a significant role in the transformation of financial markets and is a rapidly growing segment of the financial services industry. Fintech is rising and boosting the economies in many countries, including Thailand, India, China, as well as the United Arab Emirates. The use of fintech is a strategic and vital factor in economic development. Moreover, fintech has the potential to address regulatory issues, inadequate consumer protection, and obsolete technology. As a result, it is critical to pay attention to fintech in order to rise and uncover a vast new area for growth and success.

Discussion and Conclusions

Although the fintech industry is still in its infancy, it is rapidly expanding in many countries. In short, fintech is on the rise. As stated by Lee and Shin (2018), the five components of fintech ecosystems, which include fintech startups, government, technology developers, financial customers, and traditional financial institutions, are absolutely essential. Albarrak and Alokley (2021) indicated that these types of collaboration in the fintech ecosystem not only fuel innovation, but also add value to the economy and increase financial industry competition. Muthukannan et al. (2020) also stated that these five components work together to stimulate the economy, improve customer experience, and promote social inclusion. In addition, Karim et al. (2022) and Nathan et al. (2022) indicated that fintech is a rapidly growing industry that benefits both consumers and businesses in several ways. According to Al Suwaidi et al. (2022), the UAE is the Middle East and North Africa's largest fintech startup hub. The development of healthy fintech ecosystems is regarded as an important component of economic diversification. Moreover, Kijkasiwat (2021) confirmed that fintech startup firms in Thailand have a greater opportunity to grow and develop. Allen et al. (2022) indicated that China has been one of the few countries to experience rapid growth in fintech over the last decade. In addition, fintech is crucial as it represents an opportunity for China’s financial system and others to transform. Goel et al. (2022) also stated that fintech in India is rapidly growing due to several benefits, including the importance of resolving all issues related to financial inclusion and so on.

Limitations and Recommendations

This study employed a narrative synthesis method. For future research, a quantitative study, such as questionnaires, regarding fintech, is recommended. A qualitative approach, such as interviews, could also provide a clear picture of insight results.

Implications

This review article contributed to the existing fintech literature. As a result, it could be used to guide future research regarding fintech. Furthermore, this review article may lead to a better understanding of fintech and its elements. It may aid business owners, managers, marketers, and employees in the financial industry or any sector to achieve and improve high business performance by implementing appropriate strategies to meet the needs and expectations of firms and clients through the use of fintech.

References

Albarrak, M. S., & Alokley, S. A. (2021). FinTech: Ecosystem, Opportunities and Challenges in Saudi Arabia. *Journal of Risk and Financial Management*, *14*(10), 460.

Alchuban, M., Hamdan, A., & Fadhul, S. M. (2022). The Usage of Financial Technology Payments During the Pandemic of Covid-19. *Future of Organizations and Work After the 4th Industrial Revolution*, 427-441.

Allen, F., Gu, X., & Jagtiani, J. (2022). Fintech, Cryptocurrencies, and CBDC: Financial Structural Transformation in China. *Journal of International Money and Finance*, *124*.

Al-Mudimigh, A., & Anshari, M. (2020). Financial Technology and Innovative Financial Inclusion. *Financial Technology and Disruptive Innovation in ASEAN*, pp. 119-129.

Al-Okaily, M., Al Natour, A. R., Shishan, F., Al-Dmour, A., Alghazzawi, R., & Alsharairi, M. (2021). Sustainable FinTech Innovation Orientation: A Moderated Model. *Sustainability*, *13*(24), 13591.

Al Suwaidi, M. E. Y. M., Sidek, S. B., & Al-Shami, S. A. (2022). A Conceptual Framework of Fintech Laws and Regulations on the Risk Management of Financial Institutions in UAE. *Mathematical Statistician and Engineering Applications*, *71*(3), 01-07.

Alt, R., Beck, R., & Smits, M. T. (2018). FinTech and the Transformation of the Financial Industry. *Electronic markets*, *28*(3), 235-243.

Castro, P., Rodrigues, J. P., & Teixeira, J. G. (2020). Understanding FinTech Ecosystem Evolution through Service Innovation and Socio-Technical System Perspective. *International Conference on Exploring Services Science*, 187-201. Springer, Cham.

Diemers, D., Lamaa, A., Salamat, J., & Steffens, T. (2015). Developing a FinTech Ecosystem in the GCC. *Dubai: Strategy*, 1-16.

Dorfleitner, G., Hornuf, L., Schmitt, M., & Weber, M. (2017). Definition of FinTech and Description of the FinTech Industry. *FinTech in Germany*, pp. 5-10. Springer, Cham.

Ertz, M., & Boily, É. (2019). The Rise of the Digital Economy: Thoughts on Blockchain Technology and Cryptocurrencies for the Collaborative Economy. *International Journal of Innovation Studies*, *3*(4), 84-93.

Giglio, F. (2022). Fintech: A Literature Review. *International Business Research*, *15*(1), 80-85. Canadian Center of Science and Education.

Goel, P., Kulsrestha, S., & Maurya, S. K. (2022). Fintech Unfolding: Financial Revolution in India. *Thailand and The World Economy*, *40*(2), 41-51.

Karim, S., Naz, F., Naeem, M. A., & Vigne, S. A. (2022). Is FinTech Providing Effective Solutions to Small and Medium Enterprises (SMEs) in ASEAN Countries?. *Economic Analysis and Policy, 75*, 335-344.

Khalatur, S., Pavlova, H., Vasilieva, L., Karamushka, D., & Danileviča, A. (2022). Innovation Management as Basis of Digitalization Trends and Security of Financial Sector. *Entrepreneurship and Sustainability Issues*, *9*(4), 56-76.

Kijkasiwat, P. (2021). Opportunities and Challenges for Fintech Startups: The Case Study of Thailand. *ABAC Journal*, *41*(2), 41-60.

Kumari, A., & Devi, N. C. (2022). The Impact of FinTech and Blockchain Technologies on Banking and Financial Services. *Technology Innovation Management Review*, *12*(1/2).

Lee, I., & Shin, Y. J. (2018). Fintech: Ecosystem, Business Models, Investment Decisions, and Challenges. *Business Horizons*, *61*(1), 35-46.

Leong, C., Tan, B., Xiao, X., Tan, F. T. C., & Sun, Y. (2017). Nurturing a FinTech Ecosystem: The Case of a Youth Microloan Startup in China. *International Journal of Information Management*, *37*(2), 92-97.

Leong, K., & Sung, A. (2018). FinTech (Financial Technology): What is It and How to Use Technologies to Create Business Value in FinTech Way?. *International Journal of Innovation, Management and Technology*, *9*(2), 74-78.

Limna, P., Kraiwanit, T., & Siripipatthanakul, S. (2022). The Growing Trend of Digital Economy: A Review Article. *International Journal of Computing Sciences Research, 6*, 1-11.

Mention, A. L. (2021). The Age of FinTech: Implications for Research, Policy and Practice. *The Journal of FinTech*, *1*(01), 2050002.

Muthukannan, P., Tan, B., Gozman, D., & Johnson, L. (2020). The Emergence of a Fintech Ecosystem: A Case Study of the Vizag Fintech Valley in India. *Information & Management*, *57*(8), 103385.

Nathan, R. J., Setiawan, B., & Quynh, M. N. (2022). Fintech and Financial Health in Vietnam during the COVID-19 Pandemic: In-Depth Descriptive Analysis. *Journal of Risk and Financial Management*, *15*(3), 125.

Pallathadka, H., & Pallathadka, L. K. (2022). A Quantitative Investigation and Critical Analysis of Fintech as a Change Agent in the Financial Markets. *Journal of Contemporary Issues in Business and Government, 28*(2), 223-235.

Pollari, I. (2017). Governments' Role in the Evolution of Fintech. *Frontiers in Finance*, 1-4. KPMG International Cooperative.

Schueffel, P. (2016). Taming the Beast: A Scientific Definition of Fintech. *Journal of Innovation Management*, *4*(4), 32-54.

Sharma, S., Srivastav, S., Gupta, A., & Manglick, A. (2022). Application of Technology and Innovation in Fintech and Its Adaptability in India. *2022 2nd International Conference on Innovative Practices in Technology and Management*, *Vol. 2*, pp. 305-311. IEEE.

Siddiqui, Z., & Rivera, C. A. (2022). FinTech and FinTech Ecosystem: A Review of Literature. *Risk Governance and Control: Financial Markets & Institutions, 12*(1), 63.

Siripipattanakul, S., Siripipatthanakul, S., Limna, P., & Auttawechasakoon, P. (2022). Marketing Mix (4Cs) Affecting Decision to be an Online Degree Student: A Qualitative Case Study of an Online Master's Degree in Thailand. *International Journal on Integrated Education, 5*(4), 31-41.

Soloviev, V. (2018). Fintech Ecosystem in Russia. *2018 Eleventh International Conference "Management of Large-Scale System Development" MLSD*, pp. 1-5. IEEE.