INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES

Vol 15, Issue 11, (2025) E-ISSN: 2222-6990

Beyond Technology: A Multidimensional Analysis of Fintech Adoption with Emphasis on Financial and Demographic Factors

Latifa Alzahrani[a]* and Razaz Felimban[b]

[a]Department of Management Information Systems, College of Business Administration, Taif University, P.O. Box 11099, Taif 21944, Saudi Arabia, [b] Department of Economics & Finance, College of Business Administration, Taif University, P.O. Box 11099, Taif 21944, Saudi Arabia

*Email: lszahrani@tu.edu.sa

DOI Link: http://dx.doi.org/10.6007/IJARBSS/v15-i11/26774

Published Date: 05 November 2025

Abstract

This study highlights the essential role of financial technology (Fintech) in transforming and expanding access of financial services. Through a systematic review, this study explores the technological, economic, and psychosocial factors influencing fintech adoption. VOSviewer and Biblioshiny tools were extensively used to identify thematic areas, citations networks, and research hotspots. The review's findings indicate that most fintech adoption studies predominantly focus on the technical aspects of the technology, giving limited consideration to other variables such as the financial aspects and users' demographics. A flowchart based on the PRISMA guidelines has been included to make reviewing more credible. Based on the review's findings, a conceptual framework that presents the antecedents of fintech adoption is proposed. This study identifies the significant factors that could promote or impede the use or adoption of fintech solutions. It also disseminates information pertinent to stakeholders, outlining several avenues for advancing fintech research.

Keywords: Financial Technology, Adoption, Fintech, Financial Services, Prisma, Biblioshiny, Meta Analysis

Introduction

Financial technology, or Fintech, refers to the use of technology and software to improve and streamline processes within the financial sector (Khatun & Tamanna, 2021; Margijoyo et al., 2024; Rahadian & Thamrin, 2023; Nugraha et al., 2022). A vast number of studies have shown that the emergence of Fintech has accelerated the transformation of the financial services sector and the introduction of new solutions to improve their ease, availability, or effectiveness (e.g., Akinwale & Kyari, 2022; Bermeo-Giraldo et al., 2023; Chang et al., 2016; Mensah & Khan, 2024; Mulyono, 2023; Rahadian & Thamrin, 2023; Wang et al., 2023). Fintech is versatile and can be implemented in many ways, including digital payment mechanisms, blockchain technology, robo-advisers, and peer-to-peer (P2P) platforms. Since Fintech is on

the rise, considering the key factors that support or hinder its adoption is essential for both practitioners and researchers (Meshveliani & Tokmazishvili, 2024; Wang et al., 2023).

However, despite the promising advancements in financial services, the adoption of fintech services is still an issue that is not equally implemented across different regions and demographics (Nugraha et al., 2022; Khatri, Gupta, & Parashar, 2020; Jahan, 2022; Margijoyo et al., 2024; Mulyono, 2023; Akmal et al., 2023; Osman et al., 2020). These adoption concerns span several factors that can be categorized as technological (including compatibility of financial systems, security, and privacy concerns), financial (operating costs and potential returns), and psychosocial (including trust and Influence from other users). This study examines the literature on these critical factors and thus understands what makes or breaks user adoption of fintech solutions (Akinwale & Kyari, 2022; Bermeo-Giraldo et al., 2023; Al-Naimi et al., 2023; Jonny & Kriswanto, 2020; Meshveliani, & Tokmazishvili, 2024; Mulyono, 2022; Nanggala, 2020; Wang et al., 2023). Hence, by exploring these dimensions, this study aims to identify the determinants that may help define both the nature of fintech innovations and the methods to increase the acceptance of innovations by end users. The review process follows PRISMA guidelines to ensure methodological rigour and transparency in reporting. A PRISMA flow diagram illustrating the literature selection process is presented in the following figure. In the long run, this knowledge will contribute to maximizing the value of fintech integration within the conventional financial sector.

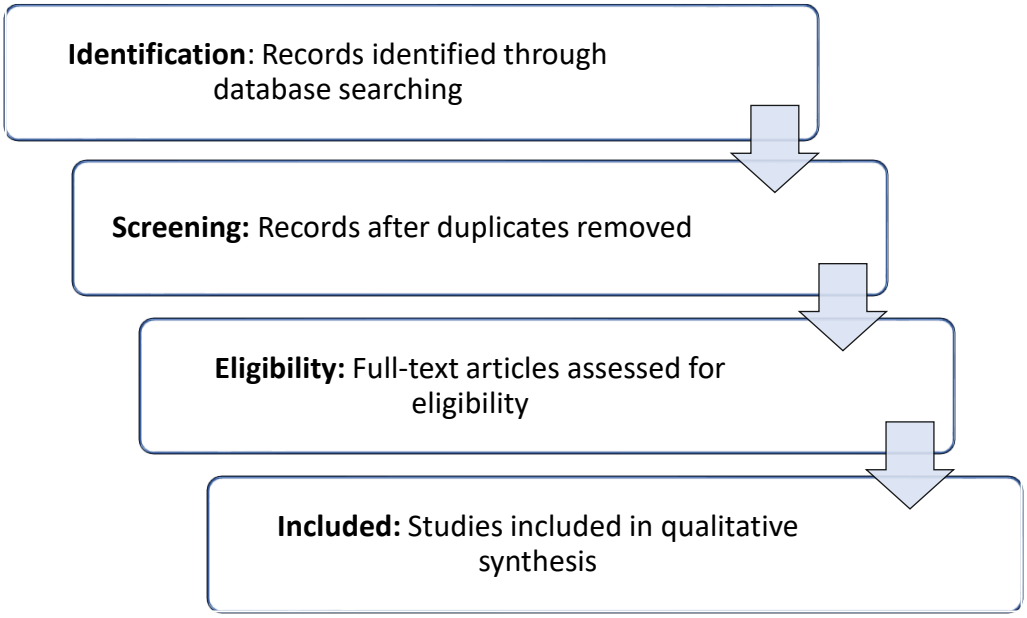

Figure 1: Illustration of PRISMA Flow Diagram.

Literature Background

Definition of Financial Technology

Financial technology, commonly known as Fintech, is the application of technology in the financial sector to improve efficiency and minimize the disruption of existing processes in the industry (Chang et al., 2016; Khatri, Gupta, & Parashar, 2020; Jahan, 2022; Rahadian & Thamrin, 2023; Wang et al., 2023). Fintech is the most extensive and interlinked financial technology ecosystem, comprising various digital applications and solutions. These include technologies for digital payments, online banking, blockchain, and robo-advisers, all of which

seek to enhance the efficiency, effectiveness, and ease of financial systems (Al-Alawi, Al Saffar, & Wahab, 2020; Chen & Lin, 2023; Bonsu, Wang, & Guo, 2023; Lim et al., 2019; Xia et al., 2023).

Fintech dates back to the end of the 20th century when credit cards were considered the first attempt at digitizing financial operations in the 1950s. However, the fintech industry began developing into its modern form in the 1990s due to the rise of the Internet and e-commerce (Akinwale & Kyari, 2022; Bermeo-Giraldo et al., 2023; Frare et al., 2023; Margijoyo et al., 2024; Oladapo et al., 2022; Wei et al., 2022; Yan et al., 2023). The 2008 global financial crisis impacted the fintech industry as it led to the erosion of consumers' trust in financial service providers as they sought more transparent and inclusive convenient solutions (Chang et al., 2016; Bonsu, Wang, & Guo, 2023; Mulyono. 2022; Nanggala, 2020; Nugraha et al., 2022; Wang et al., 2023). Several factors have fuelled the rapid expansion of the fintech industry, including technological advancements, increased Internet and mobile access, consumer behaviour, and regulatory charges (Al-Alawi, Al Saffar, & Wahab, 2020; Chen & Lin, 2023; Frare et al., 2023; Oladapo et al., 2022; Rahadian & Thamrin, 2023).

Advancements in artificial intelligence (AI), big data, and blockchain technology have led to the creation of sophisticated financial products and solutions for both personal and business markets. The availability of mobile phones and Internet connectivity has continued to spread worldwide, facilitating more people and offering them an opportunity to experience digital financial services (Mensah & Khan, 2024). This has considerable weight, especially in developing countries, which usually lag in terms of the physical structures of banking systems. Consumers' rising demand for improved and convenient services has challenged financial firms to incorporate fintech solutions into their operations streams. Some existing local legislations have adapted to increasing fintech developments to promote competition and provide a favourable environment for emerging technologies. Figure 2 below presents the visual map of the co-occurrence network on the keywords related to Fintech, generated using the VOSviewer software, providing a snapshot of recent research trends in the fintech domain.

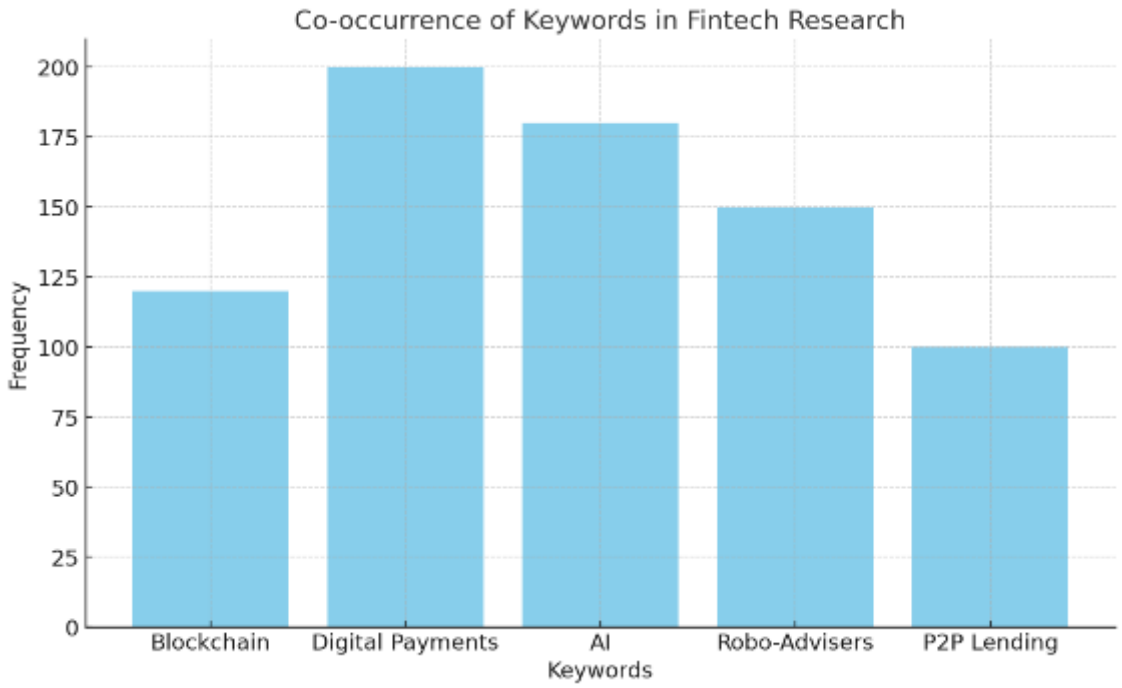

Figure 2: Co-occurrence of Keyword in Fintech Research

Advantages and Challenges of Adopting Fintech Services

Fintech is a fast-growing sector that has transformed the financial industry by offering more efficient solutions for financial services. Numerous studies highlight Fintech's role as a disruptive force in traditional banking and finance, driven by the integration of technology and innovation (Al-Alawi, Al Saffar, & Wahab, 2020; Chen & Lin, 2023; Mensah & Khan, 2024; Wei et al., 2022; Yan et al., 2023; Lim et al., 2019; Xia et al., 2023). There are many significant advantages to adopting fintech services, including the following:

- Enhanced accessibility: Fintech has been instrumental in breaking barriers to financial services because, through a device connected to the Internet, one can transact and manage financial matters. This makes sense, particularly in areas where establishing banking financial structures, including branches, is in its infancy.
- Cost efficiency: Since they are associated with optimization of processes and minimization or even elimination of the necessity of physical facilities, fintech solutions lower transactions and service costs. An example is the cost of digital wallets and other online payment options which have been observed to be cheaper than the traditional banking products.
- Improved user experience: Many fintech applications feature user-friendly interfaces, making financial services more accessible to a wider audience. For example, mobile banking apps enable users to manage their accounts, pay bills, and track expenses with ease.
- Increased transparency and security: Technologies such as blockchain elevate transparency and protection because they establish unalterable transaction records. This helps avoid fraud, makes transactions very secure, and can be proven in the case of a dispute.
- Innovation and personalization: For developed systems, Fintech advances ideas by providing new financial solutions and personalized services. Automated financial planning, which often involves robo-advisers, uses algorithms to provide

recommendations for investments specific to the client; however, machine learning helps improve the processes of credit scoring and risk assessment.

However, the development and adoption of FinTech are characterized by various challenges mainly associated with the issues of its regulation and information security (Chang et al., 2016; Margijoyo et al., 2024; Mulyono. 2022; Nanggala, 2020; Wei et al., 2022; Al-Alawi, Al Saffar, & Wahab, 2020; Chen & Lin, 2023; Yan et al., 2023). Some of the significant challenges in adopting fintech services are as follows. Based on this study bibliometric analysis, the key descriptive challenges are summarized in Figure 3 below.

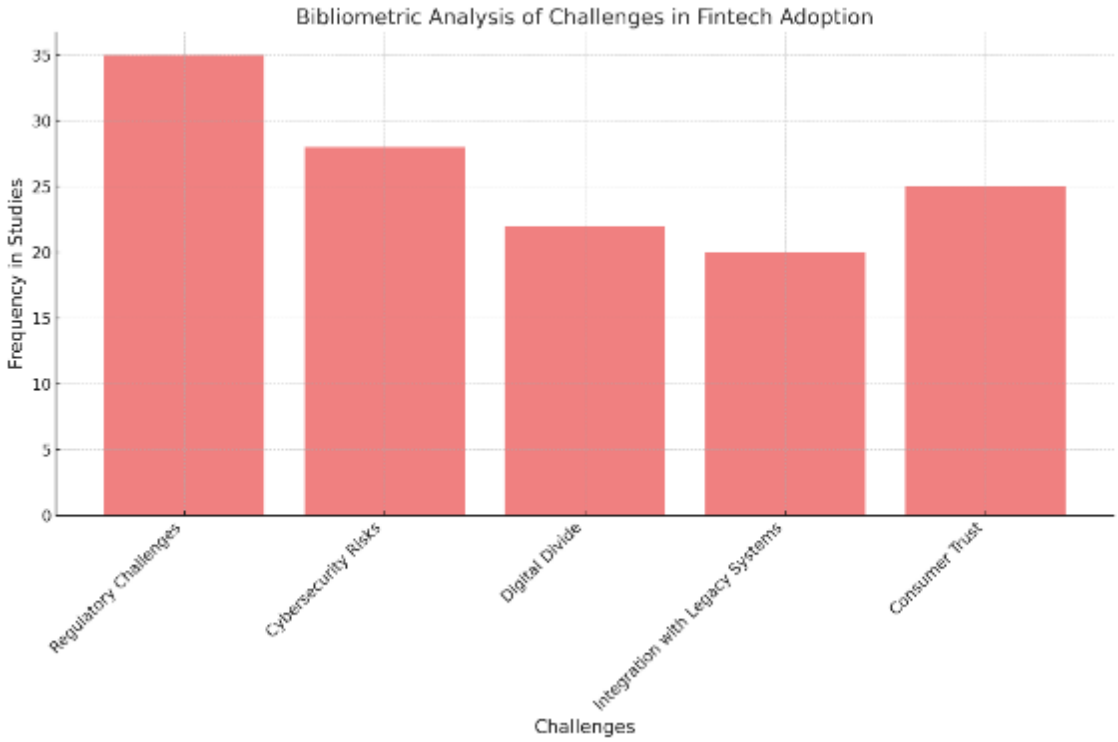

Figure 3 : Bibliometric Analysis of Challenges in Fintech Adoption

- Regulatory challenges: The fintech battleground is a highly dynamic environment with considerable regulatory complexities. Service providers, particularly financial institutions and technology providers are challenged by many, and sometimes heterogeneous, regulatory systems in various jurisdictions.
- Cybersecurity threats: With the shift of financial transactions into the online space, the threats of cyber-attacks are more serious. Some of the best areas of concern to fintech companies include policies that improve cybersecurity and protect financial information against curious glances.
- Digital divide: Although Fintech has made the access to financial services more available to many people, the digital divide persists. There are numerous people who lack access to smart phones or do not access the Internet. In this way they would be locked out of these high-end financial services, increasing economic exclusion opportunities.
- Integration with legacy systems: Traditional financial organizations remain a traditional model that cannot be adapted to the new solutions equated with fintech world. This may lead to conflicts during new application implementation and application-to-application

data passing and interfere with the flow of information between applications and technology.

- Consumer trust and adoption: To achieve large-scale adoption of fintech solutions, the consumer trust needs to be restored. The issue of data privacy, security and the trustworthiness of new technologies may demoralize users and slow the development of fintech services.

Characteristics and Nature of Fintech Products and Services

Technology often involves new economic plans, methods, platforms, and forms of payment (Margijoyo et al., 2024; Meshveliani & Tokmazishvili, 2024). For example, robo-advisers provide services on investment portfolios, but users (consumers) must know about investment concepts such as risk tolerance, diversification, and asset allocation. A lack of knowledge of this aspect means that users will not fully understand how some of these services could financially benefit them.

- Promoting Informed Decision-Making*:* Awareness of financial responsibility enables consumers to assess themselves while engaging in various fintech services. This is especially true in industries that involve high-risk lines of business, such as online lending firms, cryptocurrency investments, and digital payment solutions, where erroneous decisions can be costly. However, owing to improved financial literacy levels, users can compare different fintech products, comprehend the terms and conditions of services or products and select the most appropriate service products. This result increases the chances of adopting fintech solutions instead of trying to force change, which is nonexistent owing to a lack of understanding. For example, P2P lending is significant to understand, particularly regarding interest rates, loan terms, and the risk of loan defaults. These factors make consumers financially vulnerable, and financial literacy enables them to examine these factors before agreeing to take out loans, which can lead to financial distress.
- Enhancing Financial Inclusion*:* This review establishes that financial literacy is a key input that can be utilized to bring about greater financial inclusion by leveraging FinTech. Consequently, although Fintech can be used to reach underserved groups, including those in developing nations or villages, the adoption of these technologies will ultimately hinge on how much people know about them and how willing they are to use them. Financial literacy programmes can support these divided groups in using fintech services like mobile banking, micro-financing, and thus make consumers more financially inclusive. An example is in India, where the financial literacy programmes have increased the use of UPI system to make payments. These programmes allow users to understand how to conduct safe transactions and prevent the chances of falling prey to defrauding and increase confidence in digital financial services.
- Reducing Financial risks: With the adoption of innovation by using Fintech, the new challenges are anticipated to be the threats to client security, fraud, and loss of money. Financial literacy will enable fintech users to identify and address the potential risks related to the use of fintech, including the issue of privacy, security, and technology reliability. To illustrate, knowledge of the importance of information security among users and recognition of instances of phishing are some of the skills necessary to use online banking and digital payments. The awareness on such subjects will help users protect themselves and prevent falling prey to fraud. As an example, cryptocurrency has brought in new types of financial risks, including price volatility, and external risks, including

hacking. Financial literacy would help users understand these dangers and make decisions about which cryptocurrency to trade with or how to hedge their cryptocurrencies.

- Consumer Trust: Consumer Trust is one of the most important aspects of Fintech, and financial literacy can be viewed as the key to establishing and sustaining it. When consumers understand the functioning of Fintech and are informed about the measures to protect consumers, they will tend to accept these technologies. Thus, underlying concerns can be mitigated by awareness campaigns that clearly explain what Fintech is, what are its principal features, advantages, and what safety mechanisms are in place to ensure users are not harmed. An example from this is in the case of digital wallets and mobile payments, where teaching users about security choices such as encryption and two-factor authentication can create trust and place them more at ease using such services on a regular basis. Therefore, financial literacy and education is a key to the sustainability of fintech. Allowing consumers to become more insightful and knowledgeable about what they are engaging in with regard to Fintech products and services will be a way of making sure that consumers will be able to get the full potential of the innovations introduced by Fintech as well as having a safeguard against exploitation. Therefore, as long as Fintech can keep growing and expanding its opportunities, the role of financial literacy as one of its central issues will also become better, which implies that this sphere will be the center of interest of financiers and educators.

Research Method

This review applies a systematic methodology to identify, assess, and synthesize research on factors that impact fintech adoption. Drawing on the framework established by Alzahrani, Al-Karaghouli, and Weerakkody (2017), it adheres to the PRISMA checklist—ensuring transparency, rigor, and reproducibility in business and management research. Additionally, bibliometric tools such as VOSviewer and Biblioshiny are employed to map research trends, thematic structures, and citation networks.

Planning the Review

- Databases: Electronic databases, such as Google Scholar, IEEE Xplore, PubMed, Scopus, and Web of Science.
- Keywords: Select keywords and key phrases related to fintech adoption, including financial technology adoption, fintech adoption factors, technical determinants of Fintech, economic aspects, trust in Fintech, and Social Influence on fintech adoption.
- Time frame: Introducing research from 2019 to date so that the reviewed research articles cover the current state of Fintech.

Conducting the Review

The following criteria were applied to ensure the relevance and quality of the included studies.

- Inclusion criteria: The review examined empirical work, reviews, and theoretical papers that address fintech adoption. Furthermore, this review only included papers covering Fintech's technical, financial, and psychosocial aspects. Certain publications, such as articles from peer-reviewed journals and reputable conferences, were also considered.

- Exclusion criteria: Research articles that were not in English, as well as commentaries, editorials, and news stories, were excluded. Outright non-fintech technical studies and non-fintech fields of study research were also excluded from the study.

Data Reporting

The data were categorized and analyzed based on the emerging themes and patterns. Citation networks and research hotspots identified using VOSviewer and Biblioshiny tools provided insights into bibliometric characteristics of the sources. To code the data obtained from the assessed studies, a five-column table was created to analyze the fintech service adoption in each article, as shown in Table 1. The columns include the author and year, purpose and scope of the study, determinants of Fintech, analysis tools, and key observations made in each study. The column concerning factors influencing fintech services is classified into four aspects: demographic, technological, financial, and others. Each article is grouped into the factors focused upon in their studies. Note that the "×" denotes the lack of the corresponding aspect in the analysed article (see Table 1 below). Thus, key findings will be synthesized and visualized primarily through a PRISMA flowchart, figures, and tables, including trend analysis graphs and keyword co-occurrence networks.

Table 1
Analysis of Various Research Articles

Authors/Year	**Research Aim**	**Factors Affecting Adoption of Fintech**				**Analysis Tools**	**Research Findings**
		Demographic	**Financial**	**Technical**	**Others**		
Chen Yan, Abu Bakkar Siddik, Nazma Akter, and Qianli Dong (2023)	Discuss the features affecting the uptake and willingness to engage in mobile financial services during COVID-19.	×	Perceived value	Performance expectation Effort expectation	Social Impact Apparent trust and risk	AMOS Pro. Analysis	The study demonstrates that social influence has a direct positive impact on both perceived trust and perceived value, which in turn shape users' intentions to adopt mobile financial services (MFS) platforms. Additionally, perceived risk,

							performance expectancy (PE), and effort expectancy (EE) are key determinants of the perceived value of these platforms.
Meghna Aggarwal, Keyurkumar M Nayak, and Viral Bhatt (2023)	To identify and explore factors that determine fintech adoption behaviour in India.	×	Privilege pay	Information quality	Social standards An individual's attitude	PLS-SEM	Findings support the applicability of the Theory of Planned Behaviour (TPB) in understanding Fintech adoption, highlighting the importance of information quality as a contributing factor.
Antwi-Boampong, Ahmed, David King Boison, Musah Osumanu Doumbia, Afia Nyarko Boakye, Linda Osei-Fosua, and Kwame Owiredu Sarbeng (2022)	Review the literature to assess the factors influencing the port users' behavioural intentions to adopt fintech services in the African Sub-Saharan region.	Age	Price Value	Performance expectancy Effort expectancy	Social Influence Facilitating conditions Hedonic motivation Habit	PLS-SEM	In the context of the maritime industry in Ghana, data analysis reveals that performance expectancy, effort expectancy, and habit (HT) significantly influence port users' behavioral

							intentions to enroll in Fintech services. Conversely, factors such as facilitating conditions (FC), social influence (SI), hedonic motivation (HM), and price value (PV) are found to be statistically insignificant in predicting behavioral intention among this group.
Khatun Nasima and Marzia Tamanna (2020)	To examine the factors influencing fintech adoption.	×	×	Performance expectancy Effort expectancy Perceived reliability Added value	Social Influence Facilitating conditions Self-Efficacy Nervousness	AMOS Pro. Analysis	Other results support the conclusion that effort expectancy, social influence, facilitating circumstances, perceived trustworthiness, and value addition make an affirmative contribution to the behavior intentions on Fintech adoption. Further, it is

							determined that age is a moderating variable, which impacts the intensity of these associations.
Arif Rahadian and_Hakiman Thamrin (2023)	To identify the drivers that influence MSME in adopting fintech lending as an option.	×	×	Perceived ease of use Perceived usefulness	Attitude toward using Fintech	Structural equation model (SEM)	A close connection between perceived ease of use and perceived usefulness is also substantiated by the study. Nevertheless, there is no direct correlation between ease of use and attitude toward using Fintech lending, and perceived usefulness has a remarkably strong influence. Attitude toward using Fintech in turn is revealed as the determining influencing

							factor behavioral intention to use.
Bermeo-Giraldo, María Camila, Alejandro Valencia-Arias, Lucia Palacios-Moya, and Jackeline Valencia (2023)	To review the fundamental factors that influence the use of fintech services among young student clientele in Colombia.	×	Financial education	Perceived usefulness Digital literacy	Poor regulation Influence of Social Aspects	PLS-SEM	Also, the study discovers that financial education and social influence improve perceived benefit among users. Low regulation watch, on the other hand, is not directly associated with perceived benefit and does not seem to be influenced by social conditions. Financial education too is of paramount importance in enhancing digital literacy, usually concurrent with social influence.

Alkhwaldi Abeer F., Esraa Esam Alharasis, Maha Shehadeh, Ibrahim A. Abu-AlSondos, Mohammad Salem Oudat, and Anas Ahmad Bani Atta (2022)	To establish the factors influencing user behaviour and e-loyalty of fintech products in Jordan after the COVID-19 outbreak.	×	Financial literacy	Performance expectancy Effort expectancy	Social Influence Facilitating conditions Personal innovativeness Uncertainty avoidance		Finally, uncertainty avoidance (UA) is shown to moderate the relationship between facilitating conditions and users' behavioral intentions, while personal innovativeness (PI) moderates' associations with both performance and effort expectancy. Taken together, PE, SI and FC have been continuously reported as key predictors of behavioral intention across different user contexts.
Nugraha Deni Pandu, Budi Setiawan, Robert Jeyakumar Nathan, and Maria Fekete-Farkas (2022)	To investigate the factors that motivated Indonesian SMEs to adopt Fintech during the	×	Financial literacy	Perceived usefulness Perceived ease of use	Government support Trust User innovativeness	PLS-SEM	Findings indicate that perceived usefulness, easiness of use, government support, user trust, and

	COVID-19 pandemic.						personal innovativeness exert a positive effect on the intention to adopt Fintech solutions. Also, as an outcome, financial literacy is found to influence the adoption of Fintech indirectly meaning that it plays an enabler role by generating other mediating variables.
Khatri Arun, Nakul Gupta, and Anupama Parashar (2020)	To investigate how behavioural intention is impacted by brand and service trust.	×	×	Perceived usefulness Perceived ease of use	Brand and service trust Attitude toward using Fintech		The findings indicate a positive effect of the perceived utility, perceived ease of use, trust in brand, trust in service and attitude to use the technology on behavioral intentions to use fintech services.

							These facets are all determining how ready users are to consider using a fintech platform.
Osman Zaiton, Phang Ing, Izyanti Awg Razli, and Wong Fu Rick (2020)	To examine Kuala Lumpur students' and entrepreneurs' intentions to use fintech services.	×	×	×	Security concerns Perceived enjoyment Government support	PLS-SEM	Government support and the perceived enjoyment and security also play positive roles to the intention of using fintech services. Nevertheless, the study concludes that age is not a moderating role in this relationship, implying a wide application of fintech among age groups.
Frare Anderson Betti, Carla Milena Gonçalves Fernandes, Mariele Castro dos Santos, and Alexandre Costa Quintana	Examine the factors supporting accounting students' behavioural intention to use fintech services.	Age Gender	×	Performance expectancy Effort expectancy	Social Influence Security	PLS-SEM	This study finds that performance expectancy, effort expectancy, and security expectations all play an inordinate

(2023)							role in influencing behavioral intentions to adopt fintech. The inclusion of security as a critical variable allowed extending the UTAUT framework and pointing to the various causal relationships underpinning the successful adoption of services.
Alamoodi Mohammed AbdulKhaleq AbdulRahman and Zarehan Selamat (2021)	Investigate the variables affecting Saudi Arabia's adoption of fintech goods and services.	×	×	Perceived usefulness Perceived ease of use	Social Influence Security concerns	SPSS	The significant effect of social influence and perceived utility regarding fintech adoption is also in place. The findings support the significance of peer influence and perceived functional benefits in promoting the use of fintech solutions.

Oladapo Ibrahim Abiodun, Manal Mohammed Hamoudah, Md Mahmudul Alam, Olawale Rafiu Olaopa, and Ruhaini Muda (2022)	To determine how clients in Malaysia and Saudi Arabia perceive Fintech's flexibility in the Islamic banking industry.	×	×	×	Attitude Awareness Knowledge	PLS-SEM	Findings also demonstrate that subjectivism, user knowledge, and attitude are crucial determiners of fintech adoption. These psychological and cognitive dimensions reflect users' individual belief systems and awareness, which influence their willingness to adopt financial technologies.
Bajunaied Kholoud, Nazimah Hussin, and Suzilawat Kamarudin (2023)	To investigate the behavioural intention to use fintech services.	×	×	Performance expectancy Effort expectancy Information richness	Social Influence Facilitating conditions Trust Perceived risk Privacy concern Privacy inhibitors Privacy enablers	PLS-SEM	Although social influence and privacy barriers have little outcomes in certain situations, there are other determinants that support fintech adoption, including performanc

							e expectancy, effort expectancy, facilitating condition, and privacy enablers. These findings emphasize the necessity of not just technical functionality, but also perceived protection as factor that enhances the adoption.

Findings and Discussion

Fintech services have received much attention recently because they enable users to access and transact financial services conveniently. Nevertheless, specific barriers limit the usage of fintech services. Scholarly mapping based on bibliometric approaches has presented thematic evolution, as portrayed in the figures below, which identify the rhythms of fintech uptake. Recognizing these gaps, this study aims to establish the aspects that define users' adoption of fintech services. This section provides additional information regarding the primary factors considered in this study.

Factors Influencing the Adoption of FinTech

This work offers a complex view of the interaction between the various categories of factors that may influence fintech services in multiple contexts. New features in VOSviewer and Biblioshiny enable the identification of new patterns and their significance for adoption strategies. However, most studies treat technical factors as parameters that influence the adoption of fintech services, with relatively less emphasis on financial factors. Moreover, some studies have discussed other variables affecting users' adoption, such as perceived risks, trust, and security. Additionally, two researchers considered the demographics of users as factors affecting the successful adoption of fintech services, with more emphasis on age and gender as people's thinking ceased being collected a long time ago (Antwi-Boampong et al., 2022; Frare et al., 2023). Only two of the 23 papers analyzed considered all four factors that might affect user adoption. Each category is explained in detail below.

Technical Factors

This study finds that most studies (e.g., Al Karim et al., 2023; Bonsu, Wang, & Guo, 2023; Meshveliani & Tokmazishvili, 2024; Santoso et al., 2021) utilize perceived usefulness, perceived ease of use, and security as significant technical factors influencing users' adoption and behaviour towards fintech services. Additionally, users must know that fintech services can solve their financial issues and requirements. Accessibility of services may also be a restricting factor in the usefulness of fintech services, as risky services may not be widely used because of the slow nature of the services, inadequate information about the services offered, and poor quality customer service.

Perceived ease of use is another technical aspect that impacts users' adoption of fintech services (Alamoodi & Selamat, 2021; Bajunaied, Hussin, & Kamarudin, 2023; Santoso et al., 2021). Services provided should be easy for users to understand and access. Antecedents that affect the perceived ease of use of fintech services include the usability of its design/format, the availability of help prompts and about/help tabs for users, and the content of instructional texts in the services.

Additionally, analyzing the security measures adopted by fintech firms for their operations provides an understanding of the reliability of data protection mechanisms. As part of this investigation, the study considers encryption techniques, authentication procedures, and data storage to deliver an understanding of the security framework supporting fintech services. By analyzing such technical factors, the degree of security for consumers can be determined, and features that can be strengthened to enhance confidence in the established fintech environment can be detected.

Performance expectancy: This technical driver, known as performance expectations, which is the expectation that using Fintech will yield increased performance, is universally described as a key determinant of adoption. Additionally, both Chen et al. (2023) and Antwi-Boampong et al. (2022) established that performance expectancy positively correlates with users' intention to use Fintech, particularly in efficiency settings such as ports and mobile financial services.

Effort expectancy: Another technical aspect of using fintech platforms is the ease of use or the perceived effort required to use fintech products. Research reinforces that effort expectancy is significant and positively impacts the behavioural intention to use fintech services (Khatun & Tamanna, 2020). This implies that the more manageable the technology interface, the higher the chance it is adopted.

In bibliometric studies, visual explanations suggest that encryption and authentication measures are central to influencing user trust and adoption, as illustrated in Figure 4 below:

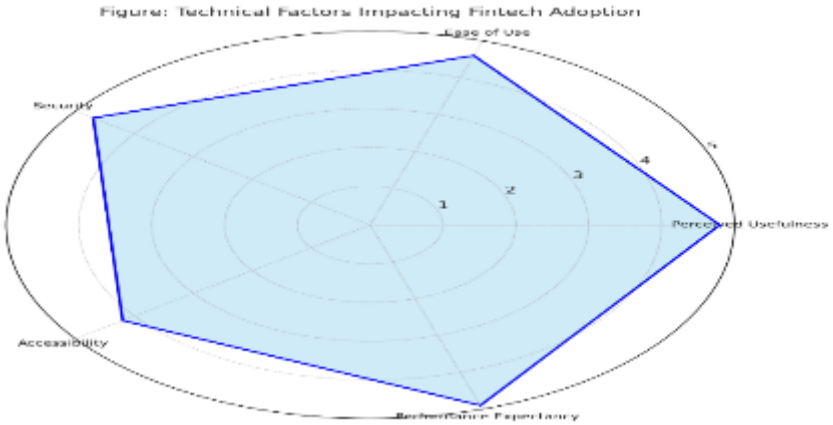

Figure 4: Technical Factors Impacting Fintech Adoption

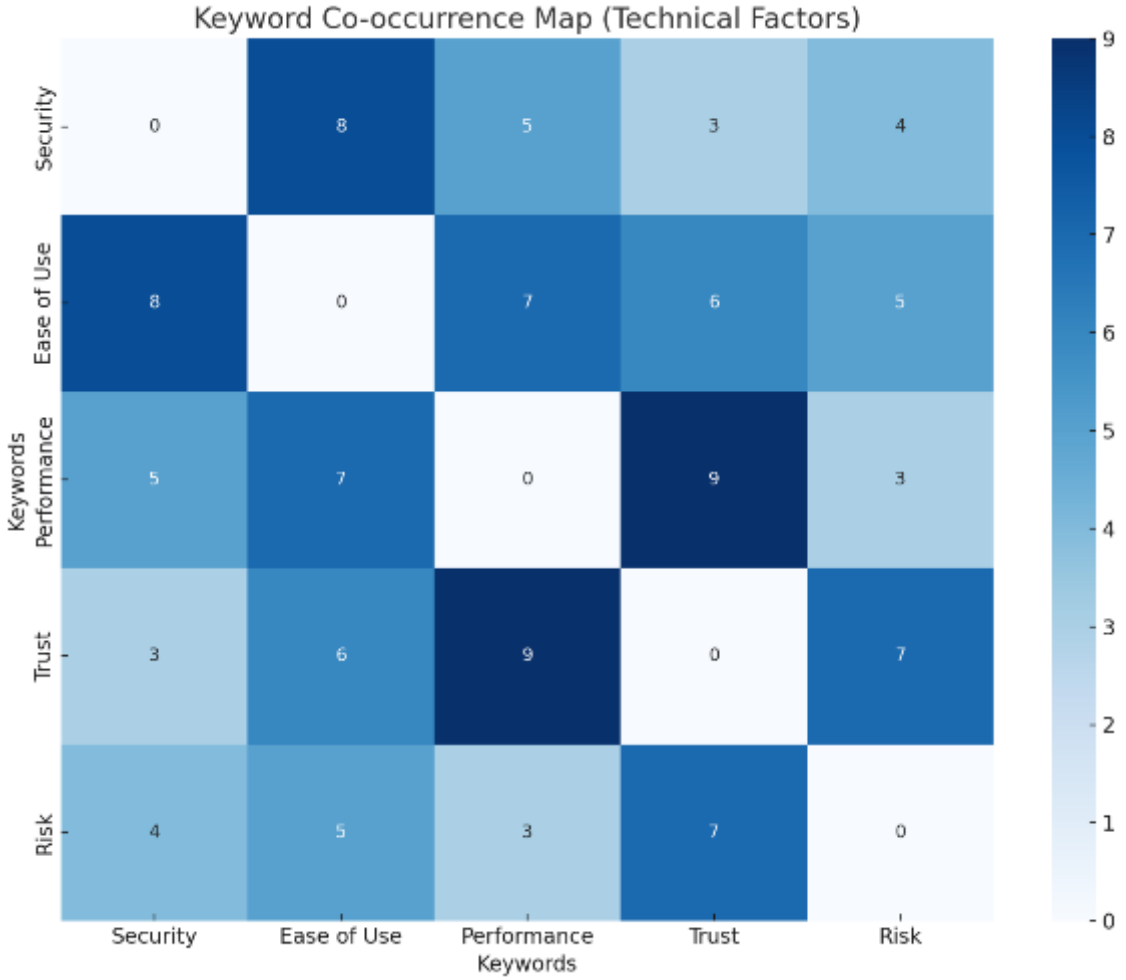

Figure 5 : Keyword Co-occurrence Map

The keyword co-occurrence map (Technical Factors) employs circles and lines to illustrate the degree of connection between the technical factors examined in the fintech adoption (see Figure 5). Here is how to interpret it:

- **Nodes (Keywords):** Every term, such as security, ease of use, performance, trust, and risk, refers to a technical attribute often mentioned in the literature. Each node is sized according to the proportion of how usually it appears according to the 'reviewed' studies.

These factors are fundamental to fintech adoption research as identified by the larger nodes, including Security and Ease of Use.

- **Connections (Edges):** Connecting lines reflect the intensity of the keywords' association in researched papers. For instance, a high correlation value between Security and Trust suggests that these two constituents are usually coupled, which means they depend on each other.
- **Clusters:** It is easy to imagine that factors labelled on the map are somehow grouped according to the topic, which might indicate thematic categories. Ease of Use and Performance could fit well under one branch, as the platforms that are easy to navigate tend to have higher performance ratings.

Financial Factors

Financial literacy and knowledge are considered as significant factors for successful adoption of Fintech services (Aggarwal, Nayak, & Bhatt, 2023; Bermeo-Giraldo et al., 2023). Financial literacy supports users to engage and profit from approximate solutions offered through fintech applications. They include the following revised bibliometric features that show a growth pattern in research activities focusing on financial literacy in adoption: the importance of financial literacy for multiple subpopulations.

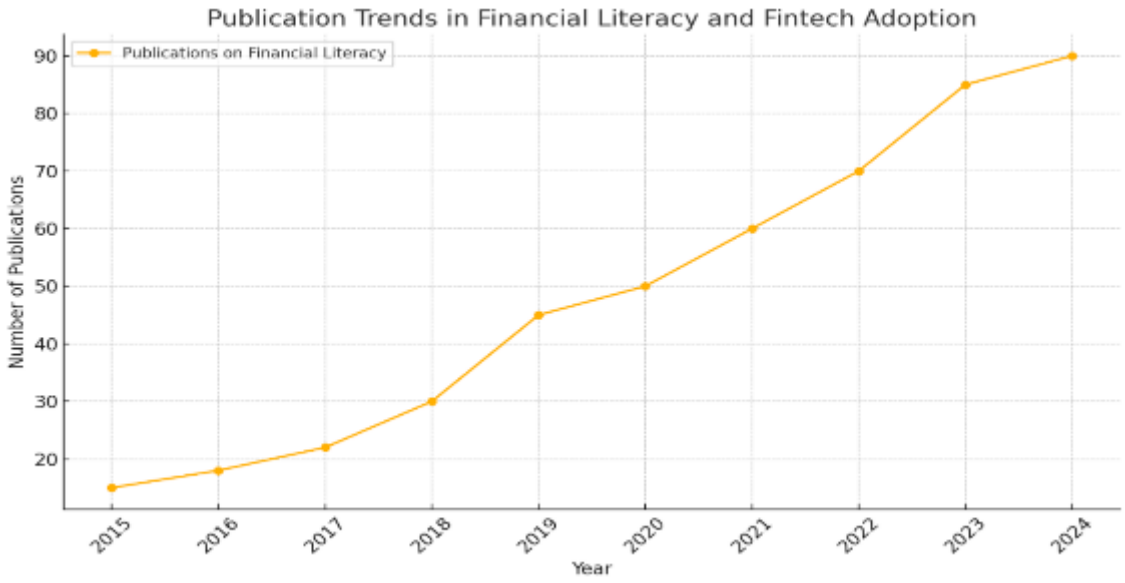

Figure 6 : Publication Trends in Financial Literacy and Fintech Adoption

The Publication Trends in Financial Literacy and Fintech Adoption chart presented in Figure 6 demonstrates the following insights:

Steady Growth (2015–2019). The number of publications steadily increased during that period, which indicates that basic research and understanding of financial literacy are determinants of the acceptance of Fintech. Scholars were not unaware of the need to create awareness among users of economic tools to enhance uptake.

Rapid Increase (2019–2024): There is a significant jump starting from 2020, which brings more concerns from scholars and industries regarding COVID-19-caused digital finance. Perhaps there were more studies on how increased/financial literacy affects user decisions when adopting Fintech. Remote financial transactions, technological advancement, and globalization were responsible for this Increase.

Key Implications

This rising trend is evident from the increased awareness of financial literacy as a key influencer of fintech solutions, as shown in the above table. The data points to academia's and policymakers' concern with studying Fintech to fill existing knowledge voids and enhance user interaction. This infographic captures the fluidity of the fintech adoption research and how it has become more critical in today's internet-based environment.

The financial risk perceptions also reduce adoption, highlighting the importance of clear cost structures for pricing models and financial assurances.

The Trend of Technical and Financial Factors Over Time

The Trend of Technical and Financial Factors Over Time chart is depicted in the following to showcase how fintech adoption has been influenced from 2015 to 2024 (Figure 7).

Technical Factors: These have stereotypically increased relevance by evolving digital, security, and usability features, as well as optimized performance. Still, the spike from 2019 to this year shows that users depend more on technology-driven solutions.

Financial Factors: These also rise progressively, although conspicuously on a lesser slope than the technical factors. This trend signifies an increased understanding of economic knowledge and the importance of embedded cost-per-course despite being neither as evident nor efficient as new technology.

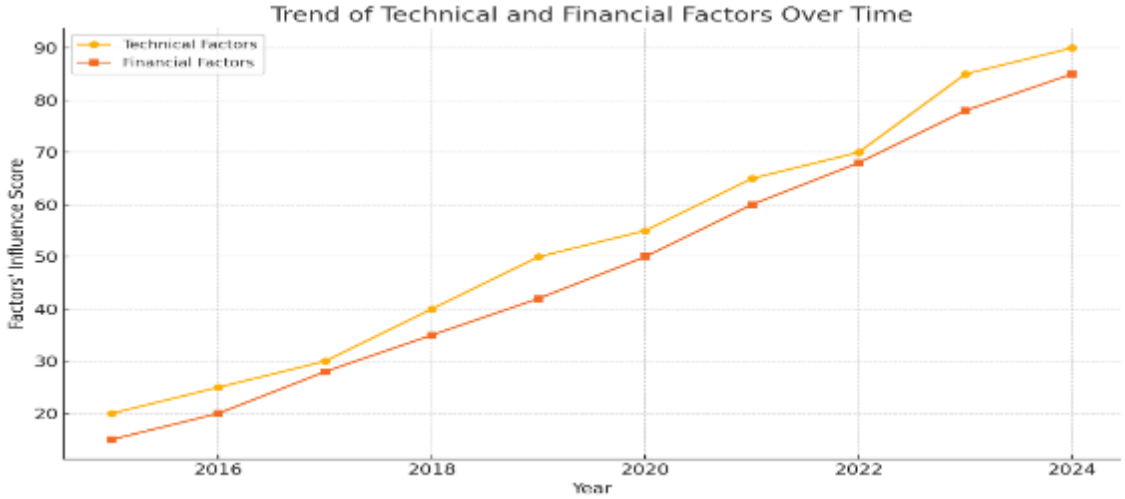

Figure 7 : Trend of Technical and Financial Factors Over Time

Demographic Factors

Other factors, including age, gender, education levels, and income, also shape users' attitudes towards fintech services (Antwi-Boampong et al., 2022; Frare et al., 2023). Specific groups, such as younger people, are more likely to accept fintech services because they are more conversant with technology and more adventurous. Additionally, highly educated and high-income users may use fintech services more because they are more financially literate and can afford them (Antwi-Boampong et al., 2022; Frare et al., 2023). Details of demographic factors are presented below.

- Age: Age is an influential demographic factor in several studies. The younger generation is familiar with and embraces technology, including innovations such as Fintech. For example, according to one study, young people use fintech services more because they are more experienced with digital applications.

- Gender: Sex also plays a critical role in using fintech services, with differences recorded between male and female users. The studies also point out that the use of fintech services is likely to be higher in male users than in female users, owing to the difference in the perception of risk and technological self-efficacy.
- Education Level: As the level of education increases, the probability of using FinTech services also increases. Users with higher levels of education find fintech applications easier to comprehend and work with. Therefore, the perceived complexity level decreases with the perceived usefulness of these services.

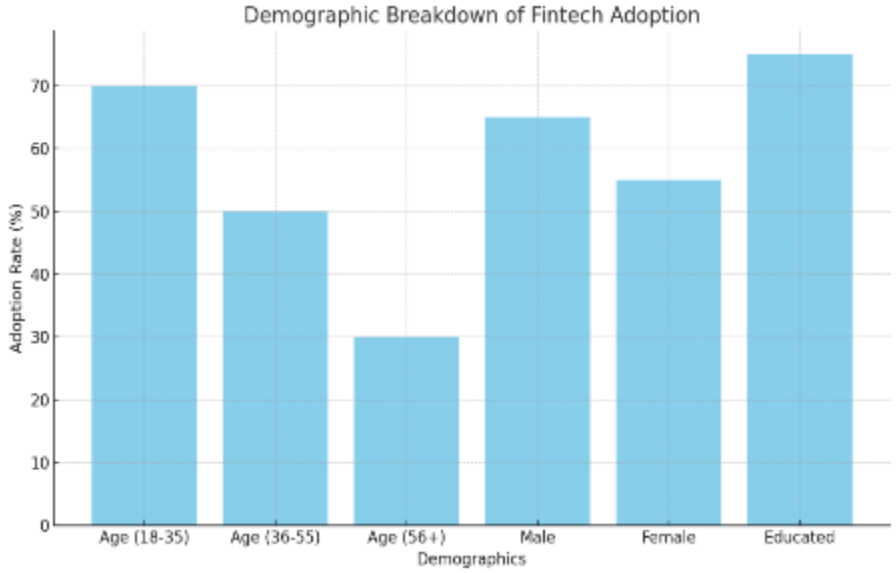

Figure 8 : Demographic Breakdown of Fintech Adoption

The Demographic Breakdown of Fintech Adoption bar chart highlights how different demographic groups engage with fintech services based on factors such as age, gender, and education as presented in Figure 8:

Age: 18–35 years (70%): The highest adoption rate is registered among young people because they know technologies and are ready to apply new digital solutions.

36–55 years (50%): Similarly, middle-aged users of fintech services are primarily evident, but they use it at a lower percentage than young users, possibly due to their attitude towards technology.

56+ years (30%): The least adopted users are the oldest, maybe due to engagement issues with technology or they do not trust digital financial services.

Gender: Male (65%): Men are more likely to adopt Fintech, which might be caused by higher technological confidence and less perceived risk.

Female (55%): Secondly, women also use fintech services at a slightly lower proportion than men, which can be attributed to the risk aspect and different financial behaviour.

Education: Educated (75%): Fintech adoption is most common among educated customers as these consumers can more quickly adapt to digital services for managing their financial assets.

Key Insights: It was also found that younger, male, and educated users are the most likely to use fintech services. Effective policies aimed at the challenges that currently older people, women, and the less educated can face can increase access to Fintech.

Other Factors

Other factors affecting users' adoption of fintech services include trust, security, and social Influence. Consumers need to be confident in their investment information and any transactions they are making (Al Azizah, Mulyono, & Suryana, 2022; Masood et al., 2023; Mahmud, Joarder, & Sakib, 2023; Rabaa'i, 2021). Elements that can distort the outlook of its users regarding trust and security involve the reputation of the selected fintech provider, the extent to which the provider adopted a high level of encryption and security measures, and the measures implemented to protect against fraud. Social Influence is another crucial factor determining users' acceptance of fintech services (Alkhwaldi et al., 2022; Hu et al., 2019; Tun-Pin et al., 2019; Shahzad et al., 2022). Consumers may turn to the opinions of people they encounter daily who have used the services. Advertisements or campaigns can also enhance social Influence to demonstrate or accelerate the utility of fintech services. Some of these factors are discussed below.

- Social Influence: This is another essential antecedent affecting fintech service adoption. Social influences are derived from society, friends, and family. For instance, social Influence influenced users when adopting mobile financial services during the COVID-19 crisis (Chen et al., 2023). Similarly, Aggarwal, Nayak, and Bhatt (2023) found a strong relationship between social norms and fintech usage behaviour in India**Error! Reference source not found.**
- Perceived trust and risk: Trust in technology and the perceived risk associated with using fintech services are critical factors. It has been demonstrated that perceived trust is a key determinant of mobile financial service adoption, while perceived risk is a barrier to adopting such technologies (Chen et al., 2023).

Summative Pie Chart

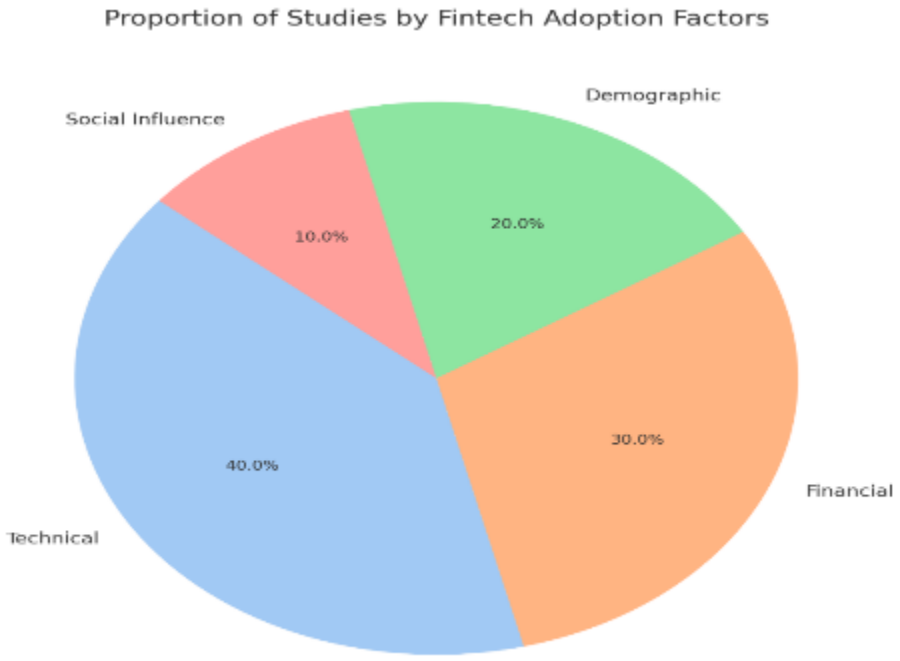

Figure 9: Proportions of Studies by Fintech Adoption Factors

The Proportion of Studies by Fintech Adoption Factors pie chart illustrates the distribution of research focus across various factors influencing fintech adoption (see Figure 9:

Technical Factors (40%): Most studies focus more on features, including usability, security, efficiency and availability. These factors are very important as they are fundamental and influence users' trust in fintech firms.

Financial Factors (30%): One of the significant areas of interest is Financial Literacy, Cost, and Risk Perception, which has been identified as a key driving force among users.

Demographic Factors (20%): Research works in this class focus on the interaction of customers with technology and the Influence of factors such as age, gender, education level, and income on fintech adoption.

Social Influence (10%): The second group of research studies is related to the Influence of social factors, peers, and culture on adopting fintech innovations. This distribution also shows that although the technical and financial concepts prevail in research on adopting Fintech, there is an emerging interest in demographic and social factors.

Theoretical Foundation

According to the theoretical framework used in the literature, this paper helps reveal that the most common theory is the technology acceptance model (TAM) (Alamoodi & Selamat, 2021; Bermeo-Giraldo et al., 2023; Firmansyah et al., 2023; Khatri, Gupta, & Parashar, 2020; Nugraha at al., 2022; Rahadian & Thamrin, 2023). Ursava, (2022) created the theoretical framework later known as TAM to explain the adoption and usage of technology by the population and is based on prior theories of human behaviour, one of them being the theory of reasoned action (TRA). Focusing on two major concepts that drive the user acceptance of technology (perceived usefulness (PU) which is a measure of how well a person thinks that using a specific system or technology will enhance his/her performance in the workplace or daily life, and perceived ease of use (PEOU) which measures how well a person believes that the use of the system will be easy), TAM tries to predict and explain the user adoption and use of information systems. These two factors influence the feeling of the users in the utilization of the technology, and this influences the way the user is going to use it in behaviour. Behavioural intention is followed by the actual use of the system (Ursavaş, 2022). In addition, the second model that is frequently used in the literature review is the unified theory of acceptance and use of technology model (UTAUT) (Antwi-Boampong et al., 2022; Alkhwaldi et al., 2022; Bajunaied, Hussin, and Kamarudin, 2023; Firmansyah et al., 2023; Khatun and Tamanna, 2020; Yan et al., 2023). UTAUT is a paradigm that was created to explain the intention of users to adopt and use technology invented by Yan et al., (2023). It also incorporates aspects of eight previous technology acceptance models, one of which contains the TRA and the TAM (Yan et al., 2003). UTAUT hypothesizes that the decision towards the adoption of technology is contingent on 4 main factors namely social Influence (the influence of the opinion of other people), effort expectancy (the usefulness of using the technology), performance expectancy (usefulness of using the technology) and facilitating conditions (availability of resources and support). The moderating factors are also considered by the model, and this ascertains the strength of these associations age, gender, experience, and voluntariness of use. Technology adoption has been widely studied with UTAUT in various situations (Firmansyah et al., 2023).

Other theories that have been given little attention are the theory of planned behaviour (TPB), the D & M IS success model, and the theory of perceived risk (TPR) (Aggarwal, Nayak,

and Bhatt, 2023; Firmansyah et al., 2023; Yan et al., 2023). Moreover, most studies (e.g., Antwi-Boampong et al., 2022; Alkhwaldi et al., 2022; Bajunaied, Hussin, and Kamarudin, 2023; Khatun and Tamanna, 2020; Yan et al., 2023) bring some new factors to these theories that include the trust, financial literacy, and safety, which now are deemed as key determinants in not only the adoption of Fintech.

Research Approaches

Although qualitative approaches help understand user interactions and their reasons for using the services provided by fintech firms, the results of this study indicate that the quantitative research approach is more suitable for examining the factors influencing fintech adoption because the findings can be generalized. These strengths make quantitative methods equally suitable for establishing and measuring predictors of fintech service usage, thus offering the best guidance to researchers and practitioners.

Furthermore, most studies use structural equation modelling (SEM) as an analysis tool. SEM is a statistical method used to analyze a set of ordered variables to test the relationships among observations and latent variables. These methods are frequently used in combination with quantitative research. SEM suits the purpose of testing theoretical models that might help explain fintech adoption better because it can analyze both the direct and indirect impacts of numerous factors on end users (Bajunaied, Hussin, & Kamarudin, 2023; Khatun & Tamanna, 2020; Yan et al., 2023).

Research Implications

The current research has a number of significant implications to explain the process of Fintech adoption. Firstly, it fortifies the applicable models of existence such as the technology acceptance model (TAM) and the unified theory of acceptance and use of technology (UTAUT), in particular, the perceived ease of use, performance expectancy, and trust. Nonetheless, in light of the financial and the demography being considered as an adoption criterion, this coverage also challenges use of adoption models built using technology; which presently forms the bulk of the current literature.

The present models are incapable of understanding adoption behaviours in different groups especially in developing countries where financial services adoption is not maximized. The current research motivates the future studies to refine these models with added economic consciousness and differences among the users that are of greater importance to be applied to the world of digital financial services.

Moreover, the proposed study presents value and is consistent with the current body of literature through the introduction of less researched constructs such as education level, perceived financial risk, and socio-cultural impact. These are matters that should be delved into in future empirical studies in terms of moderators or mediators, particularly in developing economies. Thus, the conceptual structure of the current study can serve as a guideline in the creation of a hypothesis-driven investigation that would be informed by the experiential evidence of using Fintech.

Finally, this research highlights significant recommendations on usability in targeting specific user segments and inclusiveness. Millennial, or users who live their lives online have different

responses to these platforms when compared to their older counterparts or even computer illiterate ones. It also means that, to enhance the customer experience, interface design and risk communication, fintech firms need to consider customer demographic characteristics during onboarding. One risk is selective adoption, which could disadvantageously require a one size fits all approach and reduce the desired population coverage.

The Conceptual Framework

The following section describes the conceptual framework created with the help of this review to analyze the key factors affecting the process of adopting fintech services. The framework is structured around four key categories that may affect fintech adoption: financial, technical, demographic, and other factors, as seen in below (see Figure 10).

Financial Factors

These economic aspects influence an individual's decision to adopt Fintech. They include cost, perceived value, and financial literacy and have a significant influence (Aggarwal, Nayak, & Bhatt, 2023; Boison et al., 2022; Khatun & Tamanna, 2020; Bonsu, Wang, & Guo, 2023; Wang et al., 2023).

Technical Factors

Technical factors are the technologicaletechnical aspects of fintech services including ease of use, accessibility, security (Al Karim et al., 2023; Bonsu, Wang, & Guo, 2023; Santoso et al., 2021). They are important determinants, as they influence the experience of users and their confidence in fintech services. Important contributors of the intention to use fintech services are the technical nature of fintech services.

Demographic Factors

Demographics include age, gender, education level, or income level (Antwi-Boampong et al., 2022; Frare et al., 2023). These effects could greatly influence the desire to use fintech services since the exposure and comfort with technology will be different based on the age, sex, and race demographics and individuals..

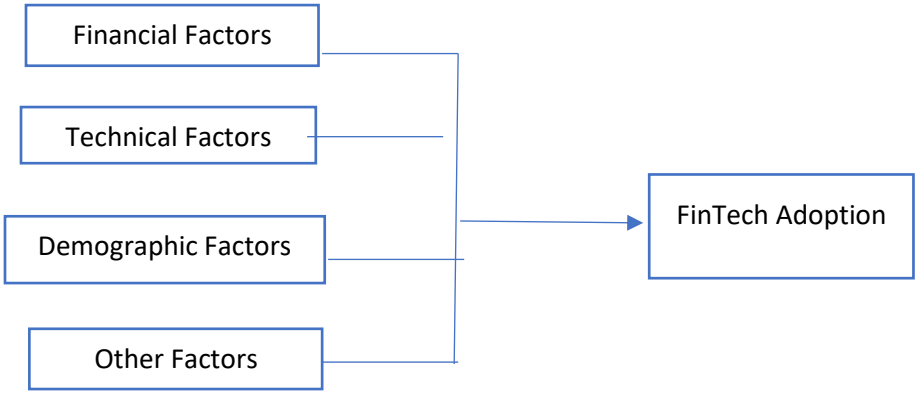

Figure 10: The Conceptual Framework

- **Other Factors**

Other factors that can also play a role in adopting fintech services include social Influence, cultural aspects, and the regulatory environment. These external factors may either facilitate

or hinder the adoption process (Aggarwal, Nayak, & Bhatt, 2023; Antwi-Boampong et al., 2022; Bermeo-Giraldo et al., 2023; Rabaa'i, 2021; Yan et al., 2023).

Conclusion

In summary, Fintech is a disruptive innovation in the financial market, affecting the new patterns of providing and consuming financial services. Fintech has grown over the years, becoming more efficient, effective, and affordable through technology and innovation. The effects of Fintech are realized when competition is created in the financial sector, while customers receive value-added services and convenience. However, this growth has brought into question issues related to consumer protection, privacy, and cybersecurity. This study captures critical factors that directly impact the adoption of fintech services, including perceived utility, perceived ease of use, trust and security, social Influence, and demographics. Such factors must be considered by financial institutions and providers of financial technologies to carefully design and advertise their services to the requirements of target consumers.

Research Contributions

Four important contributions of this research in the area of Financial Technology (Fintech) adoption. To begin with, this paper establishes a full systematic review, which consolidates the available studies in circles of the impact of technological, financial, and psychosocial elements behind sensation in fintech adoption. In addition, this study highlights thematic areas, citation networks, and research hotspots by utilization of VOSViewer and Biblioshiny which would extend the knowledge in the fintech research. Also, adopting the application of a PRISMA-based flowchart in the review makes the results more credible and replicable. Lastly, the study offers practical implications to policymakers, financial institutions, as well as developers of technology by supporting the factors that could enhance or suppress the adoption of fintech. It can also provide guidance to future studies that should embrace interdisciplinary research on fintech adoption far beyond technical aspects.

Potential Limitations and Future Research Works

One of the key limitations of this study is that its findings are derived from a secondary analysis of users' adoption of fintech services. Therefore, the findings can only be declared conclusive if primary data support the framework laid down in this research. Another drawback is that five internet databases were used to gather the literature, using keywords including 'fintech', 'adoption', 'factors', and 'users' perspective'. Other researchers should consider using different combinations of keywords such as 'digital' and 'risk' to search for other related journals and databases in the future.

References

Aggarwal, M., Nayak, K. M., & Bhatt, V. (2023). Examining the factors influencing fintech adoption behaviour of gen Y in India. *Cogent Economics & Finance*, *11*(1). https://doi.org/10.1080/23322039.2023.2197699

Akinwale, Y. O., & Kyari, A. K. (2022). Factors influencing attitudes and intention to adopt financial technology services among the end-users in Lagos State, Nigeria. African Journal of Science, Technology, Innovation and Development, 14(1), 272-279.

Akmal, S., Talha, M., Faisal, S. M., Ahmad, M., & Khan, A. K. (2023). Perceptions about FinTech: New evidences from the Middle East. Cogent Economics & Finance, 11(1), 2217583.

Al Azizah, Mulyono, & Suryana, (2022) The determinants of willingness to continuously use financial technology among university students: Dataset from a private university in Indonesia. Data in Brief, 44, 108521.

Al Karim, R., Rabiul, M. K., Taskia, A., & Jarumaneerat, T. (2023). Millennial Customer Engagement with Fintech Services: The Mediating Role of Trust. Business Perspectives and Research, 22785337231183275.

Al-Alawi, A. I., Eman Mohamed Al Saffar, Z. A., & Wahab, F. (2020). Factors Affecting Consumers' Online Purchase Intention through Social Media Platforms in Saudi Arabia and Bahrain. Arab Gulf Journal of Scientific Research, 38(4).

Alamoodi, M. A. A., & Selamat, Z. (2021). Determinants of Fintech Products and Services Adoption in Kingdom of Saudi Arabia (KSA). Journal of International Business, Economics and Entrepreneurship, 6(2), 1-8.

Alkhwaldi, A. F., Alharasis, E. E., Shehadeh, M., Abu-AlSondos, I. A., Oudat, M. S., & Bani Atta, A. A. (2022). Towards an understanding of FinTech users' adoption: Intention and eloyalty post-COVID-19 from a developing country perspective. Sustainability, 14(19), 12616. Q218

Al-Naimi, A. A., Al Abed, S., Farooq, U., Qasaimeh, G., & Alnaimat, M. A. (2023). Impact of Open Banking Strategy and Fintech on Digital Transformation. In 2023 International Conference on Business Analytics for Technology and Security (ICBATS) (pp. 1-5). IEEE.

Alzahrani. L., Al-Karaghouli, W., and Weerakkody, V. (2017). Analysing the critical factors influencing trust in e-government adoption from citizens' perspective: A systematic review and a conceptual framework. International Business Review. 26(1): 164–175. http://dx.doi.org/10.1016/j.ibusrev.2016.06.004

Bajunaied, K., Hussin, N., & Kamarudin, S. (2023). Behavioral intention to adopt FinTech services: An extension of unified theory of acceptance and use of technology. Journal of Open Innovation: Technology, Market, and Complexity, 9(1), 100010.

Bermeo-Giraldo, M. C., Valencia-Arias, A., Palacios-Moya, L., & Valencia, J. (2023). Adoption of Fintech Services in Young Students: Empirical Approach from a Developing Country. Economies, 11(9), 226.

Boison, D. K., Doumbia, M. O., Boakye, A. N., & Owiredu Sarbeng, K. (2022). Factors Affecting Port Users' Behavioral Intentions to Adopt Financial Technology (Fintech) in Ports in Sub-Saharan Africa: A Case of Ports in Ghana. *FinTech*, *1*(4), 362-375. https://doi.org/10.3390/fintech1040027

Bonsu, M. OA., Wang, Y., & Guo, Y. (2023). Does fintech lead to better accounting practices? Empirical evidence.Accounting Research Journal, 36(2/3), 129-147.

Chang, Y., Wong, S. F., Lee, H., & Jeong, S. P. (2016, August). What motivates Chinese consumers to adopt FinTech services: a regulatory focus theory. In Proceedings of the

18th annual international conference on electronic commerce: e-commerce in smart connected world (pp. 1-3).

Chen, Y. C., & Lin, K. H. (2023). TAM Application in Investigating the Learning Behavior of FinTech Practitioners Towards Internet-Only Bank During the COVID-19 Lockdown: A Case Study of LINE Bank. In International Conference on Innovative Technologies and Learning (pp. 550-559). Cham: Springer Nature Switzerland.

Firmansyah, E.A., Masri, M.; Anshari, M.; & Besar, M.H.A. (2023). Factors Affecting Fintech Adoption: A Systematic Literature Review. FinTech, 2, 21–33. https://doi.org/10.3390/fintech2010002

Frare, A. B., Fernandes, C. M. G., Santos, M. C. D., & Quintana, A. C. (2023). Determinants of intention to use FinTechs services by accounting students: a mixed methods approach. BBR. Brazilian Business Review, 20, 580-599.

Hu, Z., Ding, S., Li, S., Chen, L., & Yang, S. (2019). Adoption intention of fintech services for bank users: An empirical examination with an extended technology acceptance model. Symmetry, 11(3), 340.

Jahan, T. (2022). The Usage of Fintech Services (with the focus on University Students).

Jonny, & Kriswanto. (2020, August). Modelling the use of FinTech in Indonesia. In 2020 International Conference on Information Management and Technology (ICIMTech) (pp. 432-437). IEEE.

Khatri, A., Gupta, N., & Parashar, A. (2020). Application of technology acceptance model (TAM) in fintech services. International Journal of Management (IJM), 11(12), 3520-3548.

Khatun, N., & Tamanna, M. (2020). Factors Affecting the Adoption of Fintech: A Study Based on the Financial Institutions in Bangladesh. Copernican Journal of Finance & Accounting, 9(4), 51–75. http://dx.doi.org/10.12775/CJFA.2020.021

Lim, S. H., Kim, D. J., Hur, Y., & Park, K. (2019). An empirical study of the impacts of perceived security and knowledge on continuous intention to use mobile fintech payment services. International Journal of Human–Computer Interaction, 35(10), 886-898. Q1-2

Mahmud, K., Joarder, M., & Sakib, K. (2023). Adoption Factors of FinTech: Evidence from an Emerging Economy Country-Wide Representative Sample. International Journal of Financial Studies 11(9), https://doi.org/10.3390/ ijfs11010009

Margijoyo, P. R., Ratnawati, K., & Aisjah, S. (2024). The influence of financial literacy and the use of financial technology on business performance through financial inclusion. International Journal of Research in Business & Social Science, 13(5).

Masood, K., Maitlo, Q., Shaukat, Z., & Gul, W. (2023). Factors Influencing The Behavioral Intention To Adopt The Mobile Phone E-Wallet Services–A Post Covid Fintech And Financial Inclusion Study. Journal of Namibian Studies: History Politics Culture, 33, 1834-1857.

Mensah, I. K., & Khan, M. K. (2024). Unified Theory of Acceptance and Use of Technology (UTAUT) Model: Factors Influencing Mobile Banking Services' Adoption in China. SAGE Open, 14(1), 21582440241234230.

Meshveliani, E., & Tokmazishvili, M. (2024). The Impact of Modern Financial Technologies on The Financial Market Of Georgia. Norwegian Journal of development of the International Science No, 135, 21.

Mulyono, M. (2023). The Impact of Digital Literacyon Fintech Literacy. In E3S Web of Conferences (Vol. 426, p. 02003). EDP Sciences. Service Usage Through Financial

Mulyono. M. (2022). The Effect of Financial Literacy and Fintech Knowledge on Fintech Services Usage. In 2022 International Conference on Information Management and Technology (ICIMTech) (pp. 420-424). IEEE.

Nanggala, A. Y. A. (2020). Use of fintech for payment: Approach to technology acceptance model modified. Journal of Contemporary Information Technology, Management, and Accounting, 1(1), 1-8.

Nugraha, D. P., Setiawan, B., Nathan, R. J., & Fekete-Farkas, M. (2022). FinTech adoption drivers for innovation for SMEs in Indonesia. Journal of Open Innovation: Technology, Market, and Complexity, 8(4), 208.

Oladapo, I. A., Hamoudah, M. M., Alam, M. M., Olaopa, O. R., & Muda, R. (2022). Customers' perceptions of FinTech adaptability in the Islamic banking sector: comparative study on Malaysia and Saudi Arabia. Journal of Modelling in Management, 17(4), 1241-1261.

Osman, Z., Ing, P., Razli, I. A., & Rick, W. F. (2020). Intention to Adopt Fintech Services among Entrepreneurs and Student of Entrepreneurship in Kuala Lumpur. Asian Journal of Entrepreneurship, 1(4), 102-117.

Rabaa'i, A. A. (2021). An investigation into the acceptance of mobile wallets in the FinTech era: An empirical study from Kuwait. International Journal of Business Information Systems, 1(1), 1. Q2-3

Rahadian, A., & Thamrin, H. (2023). Analysis of Factors Affecting MSME in Using Fintech Lending as Alternative Financing: Technology Acceptance Model Approach. Brazilian Business Review, 20(3), 301–322. https://doi.org/10.15728/bbr.2023.20.3.4.en

Santoso, W., Sitorus, P. M., Batunanggar, S., Krisanti, F. T., Anggadwita, G., & Alamsyah, A. (2021). Talent mapping: a strategic approach toward digitalization initiatives in the banking and financial technology (FinTech) industry in Indonesia. Journal of Science and Technology Policy Management, 12(3), 399-420.

Shahzad, A., Zahrullail, N., Akbar, A., Mohelska, H., & Hussain, A. (2022). COVID-19's Impact on fintech adoption: Behavioral intention to use the financial portal. Journal of Risk and Financial Management, 15(10), 428.

Tun-Pin, C., Keng-Soon, W. C., Yen-San, Y., Pui-Yee, C., Hong-Leong, J. T., & Shwu-Shing, N. (2019). An adoption of fintech service in Malaysia. South East Asia Journal of Contemporary Business, 18(5), 134-147.

Ursavaş, Ö. F. (2022). Technology Acceptance Model: history, theory, and application. In *Conducting Technology Acceptance Research in Education: Theory, Models, Implementation, and Analysis* (pp. 57-91). Cham: Springer International Publishing.

Wang, H., Mao, K., Wu, W., & Luo, H. (2023). Fintech inputs, non-performing loans risk reduction and bank performance improvement. International Review of Financial Analysis, 90, 102849.

Wei, L., Deng, Y., Huang, J., Han, C., & Jing, Z. (2022). Identification and analysis of financial technology risk factors based on textual risk disclosures. *Journal of Theoretical and Applied Electronic Commerce Research*, *17*(2), 590-612.

Xia, H., Lu, D., Lin, B., Nord, J. H., & Zhang, J. Z. (2023). Trust in Fintech: Risk, governance, and continuance intention. Journal of Computer Information Systems, 63(3), 648-662. Q1-2

Yan, C., Siddik, A. B., Akter, N., & Dong, Q. (2021). Factors influencing the adoption intention of using mobile financial service during the COVID-19 pandemic: The role of FinTech. *Environmental Science and Pollution Research*, 1-19.