



Impact of FinTech Adoption on Financial Inclusion among Small and Medium Enterprises in Sri Lanka: A Mediated Moderation Analysis of Digital Financial Literacy and Perceived Regulatory Support

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ABSTRACT: Despite the increasing number of available digital financial technologies, the financial inclusion of Small and Medium Enterprises has remained a problem in developing countries, including Sri Lanka. Based on this, the paper assesses various factors influencing the adoption of FinTech as per the Perceived Ease of Use, Perceived Usefulness, Perceived Security, and Trust on the financial inclusion of SMEs in the North Central Province of Sri Lanka, as well as the moderating effects from Digital Financial Literacy and Perceived Regulatory Support. The sample comprised 160 SME owners and managers who were purposively selected to ensure their prior knowledge of FinTech services. Structured questionnaires were used for data collection, while descriptive statistics, correlation, regression analysis, and PROCESS macro for mediation and moderation were performed. The results indicated that all the factors that influence FinTech adoption have a positive significant effect on SMEs financial inclusion: PEOU ($\beta = 0.253$, $p < 0.01$), PU ($\beta = 0.167$, $p < 0.01$), PS ($\beta = 0.422$, $p < 0.01$), and T ($\beta = 0.167$, $p < 0.01$). Nonetheless, DFL at 95% CI = -0.3817 to -0.0309 with an effect = -0.2097 did not have any significant moderating effect, as did PRS, $\beta = -0.0466$, $p = 0.119$. The study concludes that FinTech adoption is indeed a strong driver of financial inclusion, and neither the perceptions of regulatory support nor DFL significantly alter this relationship either positively or negatively. Practical implications of the findings are addressed to the FinTech providers, regulators, and managers of SMEs, since they will be capable of devising friendly and safe digital financial solutions, and further engage the less-than-fully-engaged FinTech platform users, thus pushing the needle on financial inclusion in underbanked areas forward.

KEYWORDS: Digital Financial Literacy, FinTech adoption, Financial Inclusion, Perceived Regulatory Support, SMEs.

I. INTRODUCTION

In spite of technology-based financial services and infrastructure improved significantly, one of the biggest and main reasons not to have an equal economy all over the world is still financial exclusion and it remains a problem worldwide. A massive part of the planet's population, mainly in troubled and underdeveloped nations are not able to save, invest or get a loan because they are not connected to the formal financial systems (Senyo & Osabutey, 2020). The accent on the use of the novel solutions with great scale and capacity in closing the financial gap came from the World Bank Global Findex report 2021 which pointed out the disproportionate obstacles that marginalized groups are facing (Demirgüç-Kunt et al., 2022). Under these circumstances, FinTech has emerged as a revolutionary and disruptive channel for providing financial services in the areas that have not been served till now. The FinTech process is such that all the customers can use their finances quickly and easily by going digital and also by relying less on the physical banking system, especially mobile platforms. But still, just because something is available does not mean it will have an impact or be successful. The digital literacy of the users determines how effective it will be. FinTech is providing (Shaikh et al., 2023) scalable and affordable solutions, but those benefits are given to customers who have the needed digital skills. Digital Financial Literacy is most important in this context. Digital Financial Literacy (DFL) is a term which signifies the technological and cognitive skills that are required for efficient understanding, evaluation and use of digital financial services, and it is opposing to the concept of traditional financial literacy (Prete, 2022; Morgan et al., 2020). On the other hand, if consumers are financially astute yet lack basic digital skills, they may still find access to FinTech services challenging (Kakinuma, 2022). Lack of DFL puts individuals at a greater risk of online scams, privacy breaches, and miscommunication about financial products. Furthermore, the ability of FinTech adoption to be financially inclusive is also impacted by the regulatory framework that governs the digital financial



sector. The degree to which consumers and businesses believe that government agencies and financial regulators foster an open, stable, and encouraging environment for FinTech operations is known as perceived regulatory support (Arner et al., 2020; Senyo & Osabutey, 2020). Small and medium-sized businesses (SMEs) would be more likely to confidently embrace FinTech services if they believe that the regulatory framework is beneficial, for example, by ensuring cybersecurity, preserving data, and establishing fair practices in digital finance. However, SMEs' ability to contribute to financial inclusion may be limited if they are discouraged from engaging in FinTech-based financial activities due to unclear regulatory backing or a lack of rule enforcement (Shaikh et al., 2023).

Small and Medium Enterprises (SMEs) are the backbone of the economies of developing countries such as Sri Lanka, where they help mostly to the generation of economic growth, job creation, and innovation. The Central Bank of Sri Lanka (2022) says that SMEs are very important for the nation's GDP and bring a good number of employees to the country. The main hindrance of limited access to formal financial services, however, still exists, and it is the major factor that keeps them from expanding and being competitive. Many SMEs do not get credit because they do not have enough assets to back up the loan, their financial documents are not up to date, and they are not trusted by the traditional banks (Jayasiri et al., 2015). Under such circumstances, FinTech could be an alternative to excluding SMBs from the financial system by offering modern digital financial solutions, such as digital payments, mobile lending platforms, and online banking systems, which are affordable and accessible. Numerous academics have examined the disparate Fintech adoption trends in various nations, such as Frost (2020); Buckley & Webster (2016). This is because, in many nations, a sizable section of the populace is still disconnected, primarily because of a lack of digital infrastructure and digital literacy. As a result, people are hesitant to embrace financial solutions that are powered by technology. Furthermore, because of the unmet demand for financial services, developing nations have more potential for Fintech. This is a result of the formal financial system's exclusion of the majority in emerging nations. As a developing nation, Sri Lanka is just beginning to integrate Fintech into its financial services industry. However, as the majority of Sri Lanka's rural population is shut out of the official banking system, there are opportunities for Fintech businesses to expand their operations there. Startups find it difficult to establish a presence in the nation because there aren't much evidence-based evaluations available to them about the crucial factors they should consider when marketing their product to the vast majority of people who lack digital infrastructure and literacy. Most of the material that is now available solely addresses internet banking, mobile banking, etc. Ashfa (2020) and Jayasiri et al. (2015) are two examples. Therefore, the purpose of this study is to determine how FinTech adoption affects financial inclusion in Sri Lankan small and medium-sized businesses using a moderation analysis of perceived regulatory support.

A. PROBLEM STATEMENT

Even though the whole world is advancing in terms of financial infrastructure, developing nations like Sri Lanka still face the problem of financial exclusion which is blocking equitable economic growth (Senyo & Osabutey, 2020). A large part of the population plus small and medium enterprises (SMEs) is still left out from the formal financial systems, and their ability to save, invest or take loans is limited (Demirgüç-Kunt et al., 2022). The introduction of FinTech has been seen as a solution to this problem since it offers digital, accessible and affordable financial services (Shaikh et al., 2023). At the same time, the role of FinTech in enhancing financial inclusion is conditioned by the users' capability of using digital financial tools. Digital Financial Literacy (DFL) deficit is still a barrier to the adoption of FinTech thus, users are exposed to risks including online fraud, data privacy violations, and inappropriate use of digital financial products (Prete, 2022; Morgan et al., 2020; Kakinuma, 2022; Jangir et al., 2022; Ravikumar et al., 2022). Literacy issues are not the only challenges; besides these conflicts, the regulatory environments are still influencing customers' perceptions about FinTech platforms and their resulting Trust and Confidence, especially the SMEs. Regulatory support perceived as such the idea that the regulators and the state are going to provide a secure, clear and facilitating environment for digital finance creates a very strong impact on the adoption choices (Arner et al., 2020; Senyo & Osabutey, 2020). Unclear or weak regulations tend to push the SMEs away from using FinTech in their financial dealings, thus defeating its purpose in the cause of financial inclusion (Shaikh et al., 2023). The statistics from the Central Bank of Sri Lanka (2022) show that SMEs are an important part of the country's GDP, employment, and innovation, but at the same time, they cannot access formal financial systems easily and this is mainly because of their inability to provide collateral, their poor financial documentation, and their low creditworthiness. FinTech solutions can very well open up new avenues to help through digital payments, mobile lending, and customized online banking systems. Still, the uptake of fintech among Sri Lankan SMEs is yet to be fully realized. Low digital literacy, lack of digital



infrastructure, and uncertain regulations have further compounded this limited uptake (Frost, 2020; Buckley & Webster, 2016). Besides that, there is a significant lack of empirical evidence in the Sri Lankan context regarding the effects of FinTech adoption on financial inclusion of SMEs and how perceived regulatory support moderates this relationship. Current research is mostly centered on online or mobile banking (Ashfa, 2020; Jayasiri et al., 2015), thereby creating a critical research gap regarding the overall influence of FinTech adoption on financial inclusion of SMEs.

B. RESEARCH QUESTIONS

- What is the impact of Perceived Ease of Use on Financial Inclusion among SMEs in Sri Lanka?
- How does Perceived Usefulness influence Financial Inclusion among SMEs in Sri Lanka?
- To what extent does Perceived Security affect Financial Inclusion among SMEs in Sri Lanka?
- What is the effect of Trust on Financial Inclusion among SMEs in Sri Lanka?
- Does digital financial literacy mediate the relationship between FinTech Adoption Factors and Financial Inclusion among SMEs in Sri Lanka?
- Does Perceived Regulatory Support moderate the relationship between FinTech Adoption factors (Perceived Ease of Use, Perceived Usefulness, Perceived Security, and Trust) and Financial Inclusion among SMEs in Sri Lanka?

C. RESEARCH OBJECTIVES

- To examine the impact of Perceived Ease of Use on Financial Inclusion among SMEs in Sri Lanka.
- To analyze the influence of Perceived Usefulness on Financial Inclusion among SMEs in Sri Lanka.
- To assess the effect of Perceived Security on Financial Inclusion among SMEs in Sri Lanka.
- To evaluate the relationship between Trust and Financial Inclusion among SMEs in Sri Lanka.
- To determine the mediating effect of digital financial literacy on the relationship between FinTech Adoption factors and Financial Inclusion among SMEs in Sri Lanka.
- To determine the moderating effect of Perceived Regulatory Support on the relationship between FinTech Adoption factors and Financial Inclusion among SMEs in Sri Lanka.

D. RESEARCH SCOPE

This research examines the influence of FinTech adoption on the financial inclusion of SMEs in the North Central Province of Sri Lanka with a focus on the Anuradhapura and Polonnaruwa districts. The study looks at the role of Perceived Ease of Use, Perceived Usefulness, Perceived Security, and Trust in SMEs' financial inclusion and at the same time, investigates the mediating moderating effect of digital financial literacy and Perceived Regulatory Support. The focus of the research is on registered SMEs from various sectors such as agriculture, trade, manufacturing, and services and it employs a cross-sectional method to assess the present state of FinTech adoption and financial inclusion. The results are believed to give insights specific to the region about how FinTech can make financial access inclusive and thereby, facilitate the growth of SMEs in the rural and semi-urban areas of Sri Lanka.

E. SIGNIFICANCE OF THE STUDY

The present study is of great importance as it helps to uncover the mechanism through which the adoption of FinTech can be made to foster the financial inclusion of Small and Medium Enterprises (SMEs) in the North Central Province of Sri Lanka, a region where access to traditional financial services is still very much limited. The research has investigated the impacts of Perceived Ease of Use, Perceived Usefulness, Perceived Security, and Trust, besides the mediating and moderating effect of digital financial literacy and Perceived Regulatory Support in this regard and consequently has drawn the line between factors that either promote or obstruct the use of FinTech by SMEs. Thus, the conclusions will serve both the lawmakers and the financial authorities in making the right decisions and creating the appropriate environment for the introduction and utilization of electronic financial solutions since they will be relying upon the research results. Besides, the study is a contribution to the academic literature of the FinTech adoption and the financial inclusion of developing economies, providing an institutional point of view that can direct the next empirical studies and practical actions in issues of Sri Lanka and comparable settings.

II. LITERATURE REVIEW

Several interrelated theories that explain FinTech adoption and its effects on financial inclusion serve as the foundation for this study. We can comprehend how perceived utility, trust, security, and ease of use impact FinTech acceptance thanks to the Technology Acceptance Model (TAM) (Davis, 1989) and the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003). UTAUT also considers the significant role that perceived regulatory support has in encouraging the adoption of new technologies. Digital financial literacy and the intention to continue using FinTech are crucial user resources that support the integration of FinTech use into financial inclusion, according to the Resource-Based View (RBV) (Barney, 1991). Oliver's (1980) Expectation Confirmation Theory (ECT) describes how favorable user experiences increase the impact of inclusion by encouraging continuing usage. Because trust and security reduce users' perceived risk in digital finance, they are recommended by the Perceived Risk Theory (Featherman & Pavlou, 2003). Lastly, the mediating role of digital financial literacy is highlighted by Capability Theory (Sen, 1999) and Financial Literacy Theory (Huston, 2010), which show that users need to be both digitally and financially literate to take use of FinTech services. These ideas work well together to support the proposed model.

FinTech and Financial Inclusion

FinTech has been identified as a major driver of financial inclusion, especially in the areas that are often neglected or developing. Digital financial services such as the ones provided by mobile money, digital credit, and payment platforms are making more people in these areas able to access banking services through the application of enforcement of ambit claims like digital identities and interoperable systems, which are in accordance with the SDGs (Morgan, 2022; Makina, 2019; SalamPasis & Mention, 2018) (Arner et al., 2020; Zetzsche, Buckley, & Arner, 2019). In India, for instance, the use of peer-to-peer lending and mobile wallets has greatly expanded the reach of financial services to rural areas. FinTech is able to give riskier borrowers alternative data and thus, it increases lending and makes the process more inclusive (Jagtiani & Lemieux, 2017; Rosyadah et al., 2021; Umar et al., 2025). Besides, it also cuts transaction costs and makes it easier to access; however, these advantages are canceled out by infrastructure, trust, and regulatory quality (Lai et al., 2022; Ozili, 2018; Rahman & Das, 2022). The latter, over the time, has been supported by country-based evidences from South Asia and Sub-Saharan Africa coupled with the focus on the very supportive policies (Mohamed & Otake, 2025; Zins & Weill, 2016). There has been a strong indication in research that SME FinTech adoption is associated with positive influences on market dynamics and banking competitiveness (Aleemi et al., 2023), as well as financial behaviour, entrepreneurship, and economic inclusion (Anggara & Nuraeni, 2025; Omowole et al., 2024; Risman et al., 2022). Thus, it is fundamental to tackle digital literacy and cultivate multi-stakeholder engagement for the reason that only then the inclusive potential of FinTech can be maximized and social inequalities diminished (Cosma & Rimo, 2023; Danladi et al., 2023).

Perceived ease of use and Financial Inclusion

PEOU is paramount in the case of the adoption of FinTech by SMEs, where the lack of computer skills and time is the major problem. Users in general would accept a system if they perceive it as user-friendly, and this is supported by empirical studies (Nugraha et al., 2022; Efendi et al., 2024; Chin et al., 2021). During the COVID-19 crisis, ease of use, alongside usefulness and support systems, was found to be vital for technology adoption by the SMEs (Nugraha et al., 2022). PEOU has been influential in the areas of behavior, reuse intention, and trust in the Islamic FinTech sector (Mahmoud et al., 2025) as well as in P2P lending and QRIS. Multiple researchers have shown that PEOU is often more influential than perceived usefulness, or it might even work independently (Efendi et al., 2024; Lusiana et al., 2025). Usability has been found to be a factor for behavioral intention, satisfaction, and enjoyment in digital payment and e-money systems, especially when combined with literacy and trust (Jasin, 2022; Kurniasari & Abd Hamid, 2020; Ikwanto & Indriani, 2024; Rahmawati & Merlinda, 2024). So, usability remains a crucial factor no matter the locations and systems (Edo et al., 2024).

H1: Perceived Ease of Use has a positive impact on Financial Inclusion among SMEs in Sri Lanka.

Perceived Usefulness and Financial Inclusion

Perceived Usefulness (PU), the major factor of FinTech acceptance and also a powerful indicator of financial inclusion, is more than ever a priority for small and medium-sized enterprises (SMEs) as they try to optimize their operations and make financial services easier to get. When the users perceive that FinTech solutions would facilitate the funding process, the transaction costs would be lowered, and the business performance would be better, they would be eventually more likely to adopt them (Nugraha et al., 2022; Efendi et al., 2024; Chin et al., 2021). The pandemic made it easier for small and medium-sized businesses to begin using

the digital finance tools due to the technology's main benefits, which, were not only better financial control but also faster payment processing (Nugraha et al., 2022). Besides, the studies on the FinTech services of peer-to-peer lending and Islamic FinTech have indicated the PU factor as a massive contributor to creating a user's trust and a person's willingness to remain with the service (Mahmoud et al., 2025; Efendi et al., 2024). Hence, in the cases of digital payment systems, e-money, and QRIS, the users' perceptions of usefulness have had a positive impact on their engagement, behavioral intention, and satisfaction (Jasin, 2022; Kurniasari & Abd Hamid, 2020; Ikwanto & Indriani, 2024; Rahmawati & Merlinda, 2024). Consequently, the role of FinTech apps in the area of productivity enhancement, accessibility, and business results remains one of the most important factors encouraging the financial inclusion of SMEs in different regions of the world (Edo et al., 2024).

H2: Perceived Usefulness has a positive impact on Financial Inclusion among SMEs in Sri Lanka.

Perceived Security and Financial Inclusion

One of the major factors that constantly influence the adoption of FinTech is perceived security, which in turn leads to raising behavioral intention, satisfaction, and trust on different platforms. Security plays a big role in users' intentions and in building trust in peer-to-peer lending and mobile payments (Utami & Soesetyo, 2023; Najib et al., 2021). The same mechanism is found in the case of mobile wallets and e-wallets, where the adoption is mainly through security and confidence i.e., driven by security through confidence (Zena & Susanto, 2022; Salah & Ayyash, 2024; Sa'diyah & Soegoto, 2021). This is further supported by structural modeling in mobile wallets and banking where perceived security acts as a dual facilitator to use i.e., directly and indirectly. Besides, perceived security is proved to be the main factor or mediator in the case of digital financial participation as per surveys conducted in countries like Bangladesh, Indonesia, China, and rural Pakistan (Khoiriyah et al., 2023; Tang et al., 2021; Ali et al., 2021; Islam et al., 2024; Hidayat ur Rehman et al., 2025).

H3: Perceived Security has a positive impact on Financial Inclusion among SMEs in Sri Lanka.

Trust and Financial Inclusion

Trust has a major impact on the adoption of FinTech in those areas where the level of digital literacy is low mostly by determining the patterns of use and the users' expectations of system quality (Alamoudi et al., 2025; Al-Qudah et al., 2025; Appiah & Agblewornu, 2025; Wang et al., 2024; Khan et al., 2023). The factors that influence the building of trust include the IT infrastructure, the support of the regulators and the ethical considerations such as privacy and the brand image (Singh & Sharma, 2024; Nguyen et al., 2024; Pratama, 2021; Vasquez & San-Jose, 2022; Zhang et al., 2023). Furthermore, in one study, it was found that trust is a decisive factor in adoption over different situations and also that trust is built up by brand strength, government support, and the disposition to trust (Balaskas et al., 2024; Ashrafi et al., 2022; Zhao et al., 2024; Garad et al., 2025). These sectors such as banking, healthcare, and MSMEs have shown their significance (Gupta et al., 2023; Elsaman et al., 2024; Hassan et al., 2022; Noreen, 2023).

H4: Trust has a positive impact on Financial Inclusion among SMEs in Sri Lanka.

Digital Financial Literacy and Financial Inclusion

DFL plays a major role in the adoption of both FI and FinTech, particularly for small and medium enterprises (SMEs). The impact of FinTech adoption has been proven to develop the digital financial competence of users, which consequently leads to their better access to financial services (Amnas et al., 2024; Easter et al., 2024; Kulshrestha, 2023; Widiyatmoko et al., 2024). In various locations such as Pakistan, Indonesia, and Bosnia, researchers have found that the use of FinTech moves DFL upwards in a series of steps, with the final outcome being the promotion of financial inclusion (Zaimovic et al., 2025; Hasan et al., 2024; Ur Rehman et al., 2023; Lontchi et al., 2023; Khan et al., 2024; Bakashaba et al., 2024; Al-Shami et al., 2024). One of the ways that DFL helps is by making sure that users are able to handle digital platforms properly, which leads to a more sustainable and successful business environment for SMEs as well as social inclusion (Basar et al., 2024; Normawati et al., 2025; Jose & Ghosh, 2025; Musa et al., 2025; Joy et al., 2025). Financial literacy programs in developing countries are helping to improve entrepreneurs' operational efficiency and financial health (Tulcanaza-Prieto et al., 2025; Pelkova et al., 2023).

H5: Digital Financial Literacy positively moderates the relationship between FinTech Adoption factors (Perceived Ease of Use, Perceived Usefulness, Perceived Security, and Trust) and Financial Inclusion among SMEs in Sri Lanka

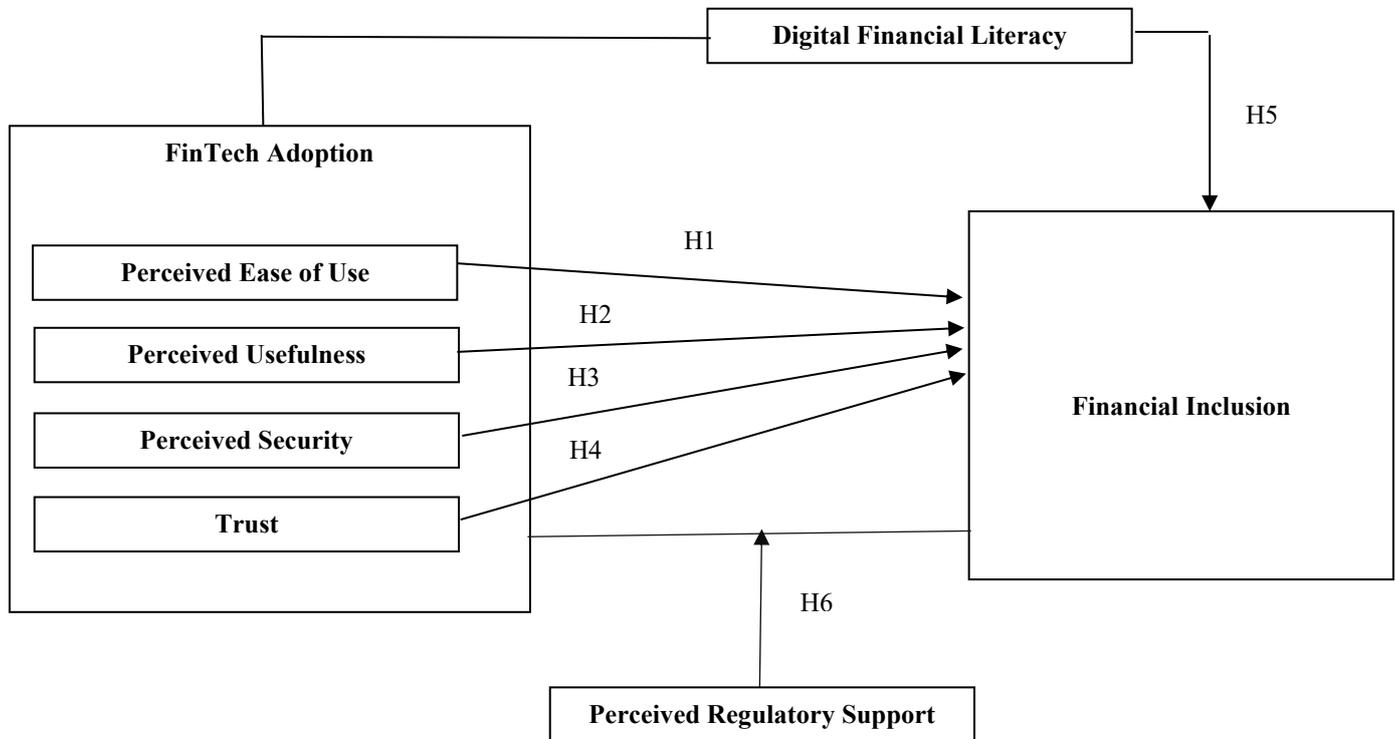
Perceived Regulatory support and Financial Inclusion

On the grounds that PRS creates environment, the transparency and trust it ushers plays a great role in the adoption of FinTech and FI. Evidence has indicated that by supporting government, financial literacy programs, and changing regulations to be the most transparent, they bring specifically the young people and the already marginalized communities closer to the FinTech access (Noreen et al., 2022; Jabbar et al., 2019; Muneeza & Mustapha, 2021; Wulandari & Kassim, 2016). Moreover, culturally centric frameworks enhance trust towards Islamic finance. The presence of FinTech is turned into actual use through facilities and regulations that are upfront. The universal ID programs, clearer licensing processes, and unambiguous regulations can all be seen as adoption promoters (Sharma et al., 2023; Demirgüç-Kunt et al., 2022), while regulatory pliability such as sandboxes increases trust and decreases barriers (Arner et al., 2016; Ozili, 2018). Consumer trust and PI have been linked, via government support and transparency, especially for SMBs and the socially disadvantaged, by research (Chen et al., 2021; Osman et al., 2021; Zvolokina et al., 2016; Opiyo et al., 2024; Pyoko et al., 2023). By promoting consistent inclusion, good regulation reduces the risks associated with early adoption (Chinoda & Kapingura, 2024; Gichuru & Namada, 2022). The role of collaborative regulatory regimes is to promote inclusivity, and at the same time, to strike a balance between consumer protection and innovation (Vijayagopal et al., 2024; Abaidoo & Agyapong, 2024). The case of Jordan and cross-country comparisons have shown that the use of FinTech and holding a financial account have a positive relationship with the quality of regulation (Al-afeef et al., 2024; Chen & Divanbeigi, 2019). Overall, PRS is the main force that entails secure, efficient services, establishes customer confidence, and reduces obstacles to form inclusive financial ecosystems.

H6: Perceived Regulatory Support positively moderates the relationship between FinTech Adoption factors (Perceived Ease of Use, Perceived Usefulness, Perceived Security, and Trust) and Financial Inclusion among SMEs in Sri Lanka

III. CONCEPTUAL FRAMEWORK

FinTech services are used by the conceptual framework to indicate how multiple factors influence FI. It shows that PEOU, PU, PS, and T are the main determinants of people's willingness to use FinTech. When users switch to FinTech, their DFL level becomes FI, revealing that tech-savvy customers can use FinTech more successfully for financial access. Besides, the model indicates that PRS reinforces the relationship between FinTech use and DFL, thus implying that supportive regulations and supervision help users become more tech-savvy. Global financial exclusion is still a problem that limits fair distribution of economic growth, despite tremendous progress in financial innovation and infrastructure. A large part of the global population, especially in unstable and developing countries, is prevented from saving, investing, or obtaining credit due to their exclusion from formal financial systems (Senyo & Osabutey, 2020). The World Bank in its 2021 Global Findex report pointed to the relative limitations of disadvantaged groups and the necessity of innovative, large-scale solutions to bridge the financial gap (Demirgüç-Kunt et al., 2022). Nevertheless, the presence of FinTech does not guarantee its impact or success. The users' ability to handle digital financial tools has a direct bearing on its effectiveness. FinTech presents scalable and cost-effective solutions (Shaikh et al., 2023), but these advantages are only available to customers who have the necessary digital skills. DFL plays a key role here. DFL is different from conventional financial literacy in that it includes both technical and cognitive skills needed for the effective understanding, evaluation, and use of digital financial services (Prete, 2022; Morgan et al., 2020). However, even those consumers who are financially literate might still find it hard to adopt FinTech services (Kakinuma, 2022) in case they are not at least a bit digitally skilled. The lack of DFL not only limits the usage but also brings about the danger of online fraud, violation of privacy, and misuse of financial products (Jangir et al., 2022; Ravikumar et al., 2022). Moreover, long-standing gender inequality, digital divides between cities and countryside, and very low digital literacy especially among women entrepreneurs are some of the factors that worsen this situation (Shaikhzada et al., 2025; Azimi, 2025). Therefore, the current study is committed to various ways the conversation on the subjects of behavior finance and FinTech adoption. Primarily, it adds to the literature by revealing the mediating role of DFL in the relationship between the use of FinTech and FI. The subsequent paper investigates the moderating effect of PRS and claims that the confidence of users in the regulation of the government has a significant impact on both the initial and the continuing adoption of FinTech products. The overlapping aim of these levels of analysis is to present a comprehensive and policy-relevant understanding of how the FinTech could, in fact, raise the FI among Sri Lankan SMEs a lot, with strategic implications for the stakeholders operating in similarly tough conditions.



The conceptual framework illustrates how the use of FinTech services impacts the financial institutions (FIs) in various ways. It suggests that the perceived ease of use (PEOU), perceived usefulness (PU), perceived security (PS), and technology (T) are the major determinants of people's acceptance of FinTech. Once a person starts to use FinTech, his/her level of digital financial literacy (DFL) improves FI, meaning that the customers who are more IT-skilled can use FinTech more efficiently for getting access to finance. Moreover, the model states that the PRS (Public Relations Services) enhances the connection between FinTech usage and DFL, which means that the users are helped by the regulations and the supervision, in becoming the more skilled in technology.

IV. RESEARCH METHODOLOGY

The research operates within a positivist research paradigm that favors empirical testing, objective measurement, and hypothesis-driven investigation. Such a philosophical perspective aligns perfectly with the study's emphasis on quantitative dimensions such as FinTech adoption, DFL, and PRS. The research intends to offer generalizable and replicable findings through the use of validated questionnaires that will help in gaining an understanding of FinTech's role in the case of Sri Lankan SMEs. The positivistic viewpoint further promotes systematic inquiries into the cause-and-effect relationships, which, in turn, are essential for the formulation of FinTech policies and practices.

A. Research approach and Design

In this research, a deductive methodology has been used, and initially, hypotheses were established according to commonly accepted theoretical models and previous empirical research. Theories are scrutinized by collecting and analyzing of primary data from the small and medium-sized enterprises in the North Central Province of Sri Lanka. A cross-sectional method, which allows data collection to be done at one point in time, was selected because of the limitations of time and accessibility. Though this lessens the power to infer causation, it is still suitable for discovering correlations and patterns among the variables. Owing to its robustness with small to moderate sample sizes, accommodation of regression and correlation, and capability of simultaneous testing of mediation and moderation effects, SPSS was preferred as the main tool for analysis. The chosen methodology guarantees scientific reliability, while it also considers the contextual limitations of data collection in Sri Lanka.



B. Population and sampling

The research's target population consists of Small and Medium Enterprise (SME) owners and managers who in North Central Province, Sri Lanka, are either very much involved or are knowledgeable about FinTech services. The researcher applied the method of purposeful sampling considering the specificity of the matter in order to get the participants who were well-informed and skilled in the usage of digital financial systems. This method increases the validity and applicability of the collected data. The ideal sample size was determined through G*Power analysis, which disclosed that at least 160 responses would be necessary to spot medium effect sizes at a 95% statistical power. This sampling strategy holds up rigor amid the practical limitations of conducting research in a post-conflict area, thus securing both the feasibility and the soundness of the analysis.

C. Construct measurement, Indictors, and Sources

The research was conducted through the help of validated measurement of constructs, and each measure was tested with several items taken from well-known sources. The dimensions of PEOU & PU were measured according to the work of Davis (1989). T was borrowed from Singh and Srivastava (2018), Kumar et al. (2018), and Chandra et al. (2010). PS was obtained from Zhou (2013). Swilley (2010) suggests the measurement of PS. The FinTech Use measurement was from Venkatesh et al. (2012). FI was taken from Bongomin and Ntayi (2020) and DFL was from Ravikumar et al. (2022). Finally, the PRS was assessed with the help of Chandra et al. (2010).

D. Research instrument

A data collection method in the form of a structured questionnaire that aimed to measure the study's main constructs of FinTech usage, PEOU, PU, PS, T, and the Dependent Variable FI along with the moderating and mediating variables PRS and EFL was employed. Each of the constructs was operationalized using multiple items that were rated on a five-point Likert scale from "strongly disagree" to "strongly agree." In order to secure content validity, the questionnaire was constructed using well-established metrics. Before the main data collection, a pilot test of 30 SME respondents was done to evaluate the clarity, dependability, and cultural fit of the items. The tool's overall validity and applicability were further improved by small adjustments made in reaction to the pilot's feedback.

E. Data Collection and Analysis

Questionnaires were designed in such a way that both digital and physical formats were available to users, thus ensuring maximum inclusivity. SPSS software version 27 was used to calculate descriptive statistics, which helped in visualizing the respondents and the dataset. Cronbach's alpha was used to test the reliability and internal consistency of the scales employed in the research, while correlation analysis was utilized to uncover the interrelations between the variables. The next step was regression analysis, which established the independent variables' contribution to financial inclusion. A bootstrapping approach with 5,000 subsamples was then applied to check the statistical significance of the model parameters, with mediation analysis for Digital Financial Literacy (DFL) and moderating analysis for Perceived Regulatory Support (PRS).

V. RESULTS AND DATA ANALYSIS

A. Demographic Profiles of the Respondents

Variable	Category	Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Male	95	59.4	59.4	59.4
	Female	65	40.6	40.6	100.0
	Total	160	100.0	100.0	
Age	Below 25	27	16.9	16.9	16.9
	26 – 35	44	27.5	27.5	44.4
	36 – 45	44	27.5	27.5	71.9
	Above 45	45	28.1	28.1	100.0
	Total	160	100.0	100.0	
Education	Primary education	30	18.8	18.8	18.8
	Secondary education	58	36.3	36.3	55.0



	Bachelor's degree	52	32.5	32.5	87.5
	Master's degree	20	12.5	12.5	100.0
	Total	160	100.0	100.0	
Business Sector	Manufacturing	31	19.4	19.4	19.4
	Services	36	22.5	22.5	41.9
	Agriculture	63	39.4	39.4	81.3
	IT / Technology	18	11.3	11.3	92.5
	Other	12	7.5	7.5	100.0
	Total	160	100.0	100.0	
	Size of Industry	Micro Enterprise (1–9 employees)	40	25.0	25.0
Small Enterprise (10–49 employees)		48	30.0	30.0	55.0
Medium Enterprise (50–249 employees)		42	26.3	26.3	81.3
Large Enterprise (250+ employees)		30	18.8	18.8	100.0
Total		160	100.0	100.0	

In total, there were 160 respondents included in the sample, among whom 95 (59.4%) were males and 65 (40.6%) were females. It can be interpreted that males made up the largest portion of the respondents, indicating that the male population is more active in the management or ownership of SMEs in the North Central Province. Despite this, the significant presence of women (more than 40%) is a good sign of the increase in female participation in SME activities, which may also be taken as the progress in gender inclusivity in business and finance sectors.

With regards to age distribution, 16.9% of the surveyed population were under 25 years, 27.5% were in the 26-35 years age group, another 27.5% were aged between 36 to 45 years, and 28.1% were over 45 years. The aforementioned age distribution, which is quite balanced, indicates that the ownership and management of SMEs are not limited to certain age groups, with the highest participation being from the 45 years and above age group. The fact that a significant number of the respondents were quite young also means that FinTech adoption and financial inclusion measures are both being accepted by and reaching out to the older and the younger entrepreneurs.

In terms of educational qualifications, among the participants, 18.8% had preliminary education, 36.3% had completed secondary school, 32.5% were bachelor degree holders, and 12.5% had master's level education. The findings signal that most SME proprietors and managers are educated at least to the level of secondary school or more. The relatively high number of degree holders implies that the sample is composed of people with proper education that might practically be a good influence on their awareness, acceptance, and use of FinTech services for business and financial management.

In the process of examining the distribution of businesses by sector, it was found that 39.4% of the participants were involved in agriculture, 22.5% in the service sector, 19.4% in manufacturing, 11.3% in IT or tech-related businesses, and 7.5% in other areas of the economy. The agricultural sector's predominance points to its major role in the economy of North Central Province where the agricultural sector is still the foremost source of livelihood. On the other hand, the combined representation from the manufacturing, service, and technology sectors shows the gradual diversification of SME activities in the area, which might have an impact on the varying levels of FinTech adoption and financial inclusion.

According to the classification by enterprise size, the participant's distribution showed that 25% were micro enterprises (1-9 employees), 30% small enterprises (10-49 employees), 26.3% medium enterprises (50-249 employees), and finally 18.8% large ones (250+ employees). The data indicates that MSMEs, which consisted of micro, small, and medium enterprises, were the major part of the sample that lone represented more than 80% of the total respondents. Such scenario is consistent with the distribution of SMEs in Sri Lanka where MSMEs are the largest market segment. Moreover, the presence of large companies in the sample has provided a more comprehensive understanding of how firm size might influence the adoption of FinTech and financial inclusiveness, thus the study gets richer in that respect.



B. Data Cleaning and Organizing

Multicollinearity, Validity of the construct, and Reliability of the sample were evaluated before conducting the analysis

Model	Collinearity Statistics	
	Tolerance	VIF
PEOU	0.162	6.183
PU	0.397	2.522
PS	0.187	5.338
T	0.423	2.367

As per the Variance Inflation Factor (VIF) value is greater than 1 and less than 10. This indicates that there is no multicollinearity exists between the variables.

Variable	Cronbach's Alpha
PEOU	0.775
PU	0.759
PS	0.774
T	0.766
FI	0.738
DFL	0.743
PRS	0.775

The outcomes of the reliability analysis demonstrate that all constructs implemented in the investigation have their respective Cronbach's Alpha values exceeding the suggested minimum of 0.70, which can be interpreted as the measurement items having good internal consistency and being reliable. Perceived Ease of Use (PEOU) drew a number of 0.775 in particular, while Perceived Usefulness (PU) claimed 0.759, Perceived Security (PS) 0.774, Trust (T) 0.766, Financial Inclusion (FI) 0.738, Digital Financial Literacy (DFL) 0.743, and Perceived Regulatory Support (PRS) 0.775. The values above indicate that not only are the scales used for each construct reliable, but they are also consistent in carrying out the concepts. This is the reason why the measurement instruments are thought to be trustworthy for correlation and regression as well as other statistical analyses and they would thus ensure the accuracy and credibility of the study's findings.

Variable Name	KMO Value	Significant Level
PEOU	0.742	0.000
PU	0.774	0.000
PS	0.703	0.000
T	0.776	0.000
FI	0.761	0.000
DFL	0.766	0.000
PRS	0.706	0.000

Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity results demonstrated that the data could be analyzed by means of factor analysis. Each KMO value was above the minimum limit of 0.70, indicating that the data was well enough sampled for the constructs in question. The KMO values for the different constructs were as follows: Perceived Ease of Use (PEOU) 0.742, Perceived Usefulness (PU) 0.724, Perceived Security (PS) 0.703, Trust (T) 0.776, Financial Inclusion (FI) 0.761, Digital Financial Literacy (DFL) 0.766, and Perceived Regulatory Support (PRS) 0.706. Moreover, all variables had a significance level of 0.000 for



Bartlett’s Test, which further evidenced the factor analysis by showing that the correlation matrices are not identity matrices. Thus, the results can be interpreted to mean that the dataset is validly measured and robust enough to support other analyses, such as regression and moderation testing.

C. Univariate Analysis

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
PEOU	160	1.25	5.00	4.4332	0.56924
PU	160	1.25	5.00	4.4891	0.52837
PS	160	1.50	5.00	4.4363	0.55147
T	160	1.25	5.00	4.5093	0.52358
FI	160	1.25	5.00	4.4736	0.53151
DFL	160	1.00	5.00	4.4425	0.55003
PRS	160	1.50	5.00	4.5031	0.47268
Valid N (listwise)	160				

It can be inferred from the descriptive statistics of the research variables that the respondents exhibited high overall perceptions of factors affecting fintech adoption and financial inclusion. The average for Perceived Ease of Use (PEOU = 4.4332), Perceived Usefulness (PU = 4.4891), Perceived Security (PS = 4.4363), Trust (T = 4.5093), Financial Inclusion (FI = 4.4736), Digital Financial Literacy (DFL = 4.4425), and Perceived Regulatory Support (PRS = 4.5031) are all above the midpoint of the 5-point Likert scale, thus indicating that the sample of SME owners and managers perceives the fintech systems as having high usability, usefulness, security, and trustworthiness. At the same time, they declare to be financial included and digitally literate at moderate to high levels and to have positive opinions about the regulatory support. The standard deviations from 0.47268 (PRS) to 0.56924 (PEOU) indicate that there was relatively low variation in responses, which means that the majority of the participants shared the same opinions on the variables. In general, these descriptive findings imply that the SMEs in the North Central Province of Sri Lanka have positive attitudes toward fintech adoption and associated factors, thus providing strong support for future research on their impact on financial inclusion.

D. Bivariate analysis

Correlations		PEOU	PU	PS	T	FI
PEOU	Pearson Correlation	1				
	Sig. (2-tailed)					
PU	Pearson Correlation	0.727**	1			
	Sig. (2-tailed)	0.000				
PS	Pearson Correlation	0.898**	0.669**	1		
	Sig. (2-tailed)	0.000	0.000			
T	Pearson Correlation	0.697**	0.702**	0.679**	1	
	Sig. (2-tailed)	0.000	0.000	0.000		
FI	Pearson Correlation	0.871**	0.751**	0.875**	0.748**	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	
	N	160	160	160	160	160

** . Correlation is significant at the 0.01 level (2-tailed).



The correlation analysis brought to light a strong and, at the same time, statistically significant positive relationship between all independent variables (IVs): Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Perceived Security (PS), and Trust (T) with the dependent variable (Financial Inclusion (FI)). Correlation coefficients were quite high, with PEOU leading the pack showing a strong correlation with FI ($r = 0.871, p < 0.01$), thus pointing out that the SMEs who view FinTech systems as user-friendly are more likely to get financially included. Perceived Usefulness (PU) also correlated highly with FI ($r = 0.751, p < 0.01$), revealing that the handier and more efficient the SMEs consider FinTech services, the more their participation in the financial system. Trust (T) also knew very well how to create a positive impact on financial inclusion and therefore reported a strong and significant correlation with FI ($r = 0.875, p < 0.01$) which drew attention to the fact that increased trust in FinTech systems facilitates greater financial participation. Perceived Security (PS), on the other hand, had a moderately strong and significant positive correlation with FI ($r = 0.748, p < 0.01$), to mean that the SMEs who deem FinTech secure are more likely to use these services without hesitation. To sum up, all the variables are significantly correlated at the 1% significance level ($p < 0.01$), which means that more membership and acceptance of FinTech systems in Sri Lanka among the SMEs is stronger with higher perceptions of usability, usefulness, security, and trust.

E. Multivariate analysis

Model Summary				
Model	R	R Square	Adjusted Square	R Std. Error of the Estimate
1	0.917 ^a	0.841	0.837	0.21482

a. Predictors: (Constant), T, PS, PU, PEOU

The regression model that includes Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Perceived Security (PS), and Trust (T) as the predictors of Financial Inclusion (FI) has a very high effectiveness as seen from the model summary results. The coefficients of the multiple correlations ($R = 0.841$) indicate a very strong positive correlation between the independent variables and the dependent variable, which means that these factors together have a very strong correlation with the financial inclusion of SMEs. The value of R Square being 0.808 implies that around 84.1% of the variation in financial inclusion is accounted for by the four factors PEOU, PU, PS, and T combined. This powerful explanatory ability suggests that these factors related to FinTech adoption are of utmost importance in determining financial inclusion. The value of Adjusted R Square at 0.837 which is adjusted for the number of predictors in the model supports the claim of the model being strong and applicable, with only a very slight decrease from the value of R Square. The standard error of the estimate being (0.21482) is not very high, which shows that the predicted and actual values are close indeed, thus the model is a good fit. To sum up, the findings indicate that the model is very powerful indeed and has the ability to explain how FinTech adoption factors affect financial inclusion among SMEs in Sri Lanka and it is also very reliable.

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.001	4	9.500	205.872	0.000 ^b
	Residual	7.199	156	.046		
	Total	45.200	160			

a. Dependent Variable: FI
b. Predictors: (Constant), T, PS, PU, PEOU

The significance level of 0.000 is less than both 0.05 and 0.01 according to the given ANOVA Table. The model is statistically significant at the 1%, or 0.01, significance level. This claim suggests that even though the model only offers a poor fit when assessing the dependent variable as shown in the above table, it is statistically significant.



Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	0.099	0.162		.612	0.541
	PEOU	0.237	0.074	0.253	3.188	0.002
	PU	0.168	0.051	0.167	3.295	0.001
	PS	0.407	0.071	0.422	5.717	0.000
	T	0.170	0.050	0.167	3.405	0.001

a. Dependent Variable: FI

The regression analysis results show the positive influence of all independent variables on Financial Inclusion (FI) and among small and medium enterprises (SMEs) in Sri Lanka. The coefficient for Perceived Ease of Use (PEOU) shows a very significant positive impact on FI ($\beta = 0.253$, $t = 3.188$, $p < 0.01$), which means that when fintech services are easy to use, the SMEs are more likely to adopt them. The variable Perceived Usefulness (PU) is also a significant variance maker in FI ($\beta = 0.167$, $t = 3.295$, $p < 0.01$) which indicates that the SMEs consider fintech adoption as a way to improve their financial operations and thus attach a positive perception to it. Perceived Security (PS) is the one with the biggest impact among the independent variables ($\beta = 0.422$, $t = 5.717$, $p < 0.01$), suggesting that the lack of secure fintech systems is a major reason why SMEs do not participate in digital financial services. Trust (T) is the third most influential factor for the positive FI growth trend ($\beta = 0.167$, $t = 3.405$, $p < 0.01$), meaning that the trust of SMEs in the reliability and integrity of the fintech platforms leads to a higher degree of financial inclusion. To sum up, the findings affirm that all factors associated with fintech adoption are responsible for the observed positive financial inclusion trend in the SME segment.

F. Mediating Analysis

Model : 4
 Y : FI
 X : IV
 M : DFL

Sample Size: 160

Model Summary – Direct and Mediation Analysis

Model	Predictors	R	R ²	MSE	F	df1	df2	p
1	IV	0.9144	0.8360	0.0499	810.8032	1	159	<0.001
2	IV + DFL	0.9140	0.8355	0.0471	401.1413	2	158	<0.001

Coefficients – Direct Effect of IV on FI

Variable	B	SE	t	p	95% CI (LLCI – ULCI)
Constant	-0.1864	0.1635	-1.140	0.256	-0.5093 – 0.1366
IV	1.0362	0.0364	28.475	<0.001	0.9644 – 1.1081



Coefficients – IV and DFL on FI (Mediation Analysis)

Variable	B	SE	t	p	95% CI (LLCI – ULCI)
Constant	-0.0163	0.1594	-0.102	0.919	-0.3312 – 0.2986
IV	1.2064	0.0873	13.822	<0.001	1.0340 – 1.3788
DFL	-0.2024	0.0770	-2.628	0.0094	-0.3545 – -0.0503

Direct and Indirect Effects of IV on FI via DFL (Bootstrapping 5000 Samples)

Effect Type	Effect	SE	t	p	95% CI (LLCI – ULCI)
Direct	1.2064	0.0873	13.822	<0.001	1.0340 – 1.3788
Indirect	-0.2097	0.0901	-	-	-0.3817 – -0.0309

The mediation analysis conducted with PROCESS Model 4 elucidated the indirect effect of the independent variable (IV) on Financial Inclusion (FI) through Digital Financial Literacy (DFL). The findings indicate that IV has a very reliable direct and positive effect on FI (effect = 1.2064, SE = 0.0873, t = 13.8223, p < 0.01, 95% CI [1.0340, 1.3788]). Hence, it can be concluded that the adoption of fintech positively impacts financial inclusion among small and medium enterprises in Sri Lanka. On the other hand, regarding the mediator DFL, the results show a significant negative correlation with the indirect pathway (effect = -0.2097, BootSE = 0.0901, 95% CI [-0.3817, -0.0309]), because the confidence interval does not include zero. This can be interpreted as the possibility of a suppressing effect due to the fact that, contrary to the expectation, high digital financial literacy slightly diminishes the impact of IV on FI in this context. The model in general is significant (R² = 0.8355), meaning that it has accounted for around 83.55% of the financial inclusion variance. It seems that the presence of digital financial literacy would make the influence of fintech adoption on financial inclusion less straightforward and would necessitate further research.

G. Moderating Analysis

Model : 1

Y : FI

X : IV

W : PRS

Sample

Size: 160

Model Summary – Moderation Analysis (IV × PRS → FI)

Model	R	R ²	MSE	F	df1	df2	p
1	0.9152	0.8377	0.0467	270.0277	3	157	<0.001

Coefficients – Moderating Effect of Perceived Regulatory Support (PRS)

Variable	B	SE	t	p	95% CI (LLCI – ULCI)
Constant	-0.5092	0.4677	-1.089	0.278	-1.4331 – 0.4146
IV	1.3027	0.1288	10.113	<0.001	1.0483 – 1.5571
PRS	0.0243	0.1338	0.182	0.856	-0.2399 – 0.2885
IV × PRS	-0.0466	0.0297	-1.568	0.119	-0.1052 – 0.0121



Test of Highest Order Unconditional Interaction (Moderation Test)

Interaction Term	ΔR^2	F	df1	df2	p
IV × PRS	0.0025	2.4591	1	157	0.1189

The moderating role of Perceived Regulatory Support (PRS) in the relationship between the independent variable (IV, FinTech adoption factors) and Financial Inclusion (FI) was investigated through a moderation analysis. The overall model is significant ($R^2 = 0.8377$, $F = 270.028$, $p < 0.01$) and accounts for about 83.77% of the variance in FI. The findings reveal that IV has a remarkable positive impact on FI ($\beta = 1.3027$, $SE = 0.1288$, $t = 10.113$, $p < 0.01$, 95% CI [1.0483, 1.5571]), suggesting that FinTech adoption strongly leads to financial inclusion among SMEs. Nevertheless, PRS is not significant on its own ($\beta = 0.0243$, $SE = 0.1338$, $t = 0.182$, $p = 0.856$, 95% CI [-0.2399, 0.2885]), and neither is the interaction term connecting IV and PRS ($\beta = -0.0466$, $SE = 0.0297$, $t = -1.568$, $p = 0.119$, 95% CI [-0.1052, 0.0121], R^2 change = 0.0025, $p = 0.119$). This implies that PRS does not influence the relationship between FinTech adoption and financial inclusion in this instance. More simply put, the impact of FinTech adoption on FI remains strong regardless of the perceived regulatory support among SMEs in the North Central Province of Sri Lanka.

VI. DISCUSSION

The first hypothesis (H1) indicated that the Perceived Ease of Use (PEOU) would have a positive impact on the Financial Inclusion (FI) of Sri Lankan SMEs. The correlation analysis showed a strong positive correlation between PEOU and FI ($r = 0.871$, $p < 0.01$) while the regression results confirmed this relationship with a significant positive effect ($\beta = 0.253$, $p = 0.002$, $p < 0.01$) thereby further validating the influence of PEOU on FI. In practice, it means that when the systems are seen as user-friendly, SMEs are more likely to adopt fintech services and thereby get access to digital financial services, which is in accordance with the Technology Acceptance Model (TAM) that considers the ease of use as the foremost factor in technology adoption.

H2 assumption was that PU impacts FI positively. The connection between PU and FI was both significant and positive ($r = 0.751$, $p < 0.01$), as well as the regression analysis reporting a significant effect ($\beta = 0.147$, $p = 0.001$, $p < 0.01$). With this, thinkers that regard fintech platforms as helpful for the improvement of their financial activities would, by being part of the digital financial services, be the facilitators of whole financial inclusion process.

The third hypothesis (H3) assumed that Perceived Security (PS) positively affects Financial Inclusion (FI). The correlation analysis indicated that PS and FI are moderately positively associated with $r = 0.875$, $p < 0.01$, and the regression coefficient showed also a significant positive influence with $\beta = 0.422$, $p = 0.000$, $p < 0.01$. This implies that the digital transaction security would increase SMEs' trust in the use of fintech services, thus leading them to the formal financial sector.

Hypothesis number four (H4) stated that trust (T) has a positive impact on FI. Correlation analysis revealed a strong positive correlation ($r = 0.748$, $p < 0.01$), and regression analysis confirmed a significant positive impact ($\beta = 0.167$, $p = 0.001$, $P < 0.001$). This emphasizes that the trustworthiness and the reputation of fintech companies are important factors for the SMEs to access digital financial services.

Hypothesis 5 (H5) stated that Digital Financial Literacy (DFL) would definitely moderate positively the relationship between the FinTech factors (PEOU, PU, PS, and T) and Financial Inclusion (FI). Nevertheless, the findings from the mediation analysis showed that the indirect effect of DFL was not significant (effect = -0.2097, 95% CI = -0.3817 to -0.0309). This implies that although DFL plays a role in the comprehension of FinTech adoption, it does not significantly effectuate the impact of FinTech adoption factors on financial inclusion vis a vis SMEs in North Central Province, Sri Lanka, by either side lifting or pulling down the impact.

Hypothesis 6 (H6) posited that Perceived Regulatory Support (PRS) positively moderates the relationship between FinTech adoption factors and FI. The moderation analysis revealed that the interaction between FinTech adoption and PRS was insignificant ($\beta = -0.0466$, $p = 0.1189$), and the change in R^2 on account of this interaction was negligible ($\Delta R^2 = 0.0025$, $p = 0.1189$). This suggests that the positive impact of FinTech adoption on financial inclusion holds true even when SMEs perceive regulatory support differently.



VII. CONCLUSIONS AND RECOMMENDATIONS

A. Conclusion

The outcomes of this study underscore that the adoption of FinTech is very crucial in the process of financial inclusion growing up for Small and Medium Enterprises (SMEs) in the North Central Province of Sri Lanka. To be more precise, Perceived Ease of Use, Perceived Usefulness, Perceived Security, and Trust were found out to be the main elements that highly and positively influenced the SMEs' participation in FinTech services usage. This means that if the financial digital platforms are user-friendly, provide noticeable benefits, offer secure transactions, and have a good reputation, then SMEs will be more likely to adopt and rely on such solutions for their financial activities. What is more, the study uncovered that the expected moderating roles of Digital Financial Literacy (DFL) and Perceived Regulatory Support (PRS) were not statistically significant, which means that the positive effect of FinTech adoption on financial inclusion remains no matter how far the SMEs' digital financial knowledge or their views on the regulatory environment are. This conclusion makes it clear that the major determinants of financial inclusion are the quality, usability, and reliability of FinTech services themselves, and not external or supportive factors. Moreover, the research uncovered the power of FinTech to deal with the traditional drawbacks of financing for the SMEs, like the unavailability of bonds, poor financial documentation, and banking that is very limited, thus offering the traditional financial services' affordable, accessible, and scalable alternatives. To sum it up, the study shows that FinTech is a big driver in the process of making SMEs to be in better position to take part in the formal financial ecosystem, increasing their operational efficiency, and the economic growth in Sri Lanka, especially in rural and unbanked areas that still rely on traditional methods of financial inclusion.

B. Recommendations

From the research results, a few suggestions can be made that would facilitate the use of FinTech and at the same time help the financial inclusion of SMEs in Sri Lanka. The first one is that FinTech developers or providers should work on making their platforms very easy to use, safe, and compatible with SMEs' operating requirements. This is in line with the findings that users' perceptions of Ease of Use, Usefulness, Security, and Trust significantly affected the adoption rate. Upgrading the user interfaces, providing simple instructions, and installing top-security systems will attract more users especially those SMEs that have not had much experience with digital financial services before. The second point is that even if the relationship between Digital Financial Literacy (DFL) and the financial inclusion of SMEs through FinTech adoption was not significant, the importance of training and awareness for such a scenario is not to be overlooked. They should be provided to help the SMEs cope with the technology and avoid falling into the traps of fraud or misuse of funds caused by insufficient knowledge or poor management. To begin with, the decision-makers and the regulatory bodies should maintain their practice of creating supportive and transparent frameworks for FinTech while respecting the fact that the perceived regulatory support was not a major moderator. A stable regulatory environment definitely contributes to trust and confidence in digital financial services for the long term. On the other hand, SMEs should be the ones making use of FinTech solutions, keeping track of the innovations in technology, and gradually turning to digital payment, lending, and banking which will help them get rid of the traditional finance barriers that they have been facing. If these actors implement these strategies, it will be possible for them to unify their efforts and thus, the broader financial inclusion, the development of SMEs and the support to economic growth in Sri Lanka's unbanked areas would be their common achievement.

REFERENCES

1. Abaidoo, R., & Agyapong, E. K. (2024). The regulatory environment, access innovations and financial inclusiveness: perspective from emerging economies. *SN Business & Economics*, 4(5), 53.
2. Ahmad, N., & Kaur, P. (2025). Boosting innovation, the role of access to finance for SMEs in Afghanistan. *Journal of Islamic Accounting and Business Research*.
3. 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*. Advance online publication.
4. Al-Afeef, M. A., Alsmadi, A. A., & Thwaib, B. A. (2024, April). Transforming Jordan's financial landscape: The fintech evolution towards inclusive digital payments. In *International Conference on Business and Technology* (pp. 236–246). Cham: Springer Nature Switzerland.



5. Alamoudi, A., Sohal, A., Hegazy, M., & Ameen, A. (2025). The impact of outcome expectancy on trust, usage, and advocacy of FinTech digital payments: An S-O-R model perspective. *Journal of Financial Technology Studies*, 11(2), 112-135.
6. Aleemi, A. R., Javaid, F., & Hafeez, S. S. (2023). Finclusion: The nexus of Fintech and financial inclusion against banks' market power. *Heliyon* Aleemi, A. R., Javaid, F., & Hafeez, S. S. (2023). Finclusion: The nexus of Fintech and financial inclusion against banks' market power. *Heliyon*, 9(12).
7. Aleemi, Abdur Rahman, Fatima Javaid, and Syed Sajid Hafeez. 2023. Finclusion: The nexus of Fintech and financial inclusion against banks' market power. *Heliyon* 9: e22551.
8. Ali, M., Raza, S. A., Khamis, B., Puah, C. H., & Amin, H. (2021). How perceived risk, benefit and trust determine user Fintech adoption: A new dimension for Islamic finance. *Foresight*, 23(4), 403–420.
9. Almaiah, M. A., Al-Otaibi, S., Shishakly, R., Hassan, L., Lutfi, A., Alrawad, M., ... & Alghanam, O. A. (2023). Investigating the role of perceived risk, perceived security and perceived trust on smart m-banking application using SEM. *Sustainability*, 15(13), 9908.
10. Al-Qudah, M. A., Al-Okaily, A., & Yadav, R. (2025). IT quality, trust, perceived risks, and continuous intention to use FinTech and blockchain in developing countries. *International Journal of Information Management*, 67, 102541.
11. Alrawad, M., Lutfi, A., Almaiah, M. A., & Elshaer, I. A. (2023). Examining the influence of trust and perceived risk on customers' intention to use NFC mobile payment system. *Journal of Open Innovation: Technology, Market, and Complexity*, 9(1), 100070.
12. Al-Shami, S. A., Majid, I. B. A., Rashid, N., & Ismail, A. (2024). The influence of digital financial literacy on FinTech adoption for financial inclusion in developing countries. *Global Business Review*, 25(1), 103–120.
13. Alwi, S., Alpandi, R. M., Salleh, M. N. M., & Najihah, I. (2019). An empirical study on the customers' satisfaction on FinTech mobile payment services in Malaysia. *International Journal of Advanced Science and Technology*, 28(16), 390–400.
14. Amelia, E., Hurriyati, R., Rahayu, A., Wibowo, L. A., Widjajanta, B., & Christianingrum, C. (2024). Investigating the Role of Digital Financial Literacy and Financial Technology in Boosting Financial Inclusion in Indonesia. *Cogent Business & Management*, 11(1), 2354915.
15. Amnas, M. B., Selvam, M., & Parayitam, S. (2024). The mediating role of FinTech adoption on the relationship between digital financial literacy and financial inclusion in India. *International Journal of Social Economics*, 51(3), 450–472.
16. Amnas, M. B., Selvam, M., & Parayitam, S. (2024). The mediating role of FinTech adoption on the relationship between digital financial literacy and financial inclusion in India. *International Journal of Social Economics*, 51(3), 450–472.
17. Amnas, M. B., Selvam, M., Raja, M., Santhoshkumar, S., & Parayitam, S. (2023). Understanding the determinants of FinTech adoption: Integrating UTAUT2 with trust theoretic model. *Journal of Risk and Financial Management*, 16(12), 505.
18. Anggara, M. R., & Nuraeni, N. (2025). Enhancing the sustainability of small and medium enterprises (SMEs) through Islamic FinTech: A comprehensive review of emerging trends (2018–2024). *Civilization Research: Journal of Islamic Studies*, 4(1), 21–37.
19. Appiah, K., & Agblewornu, A. K. (2025). Drivers and barriers to FinTech adoption in Sub-Saharan Africa: The mediating role of trust. *Technological Forecasting and Social Change*, 173, 121121.
20. Arner, D. W., Barberis, J., & Buckley, R. P. (2016). The Evolution of Fintech: A New Post-Crisis Paradigm? *Georgetown Journal of International Law*, 47(4), 1271–1319.
21. Arner, D. W., Barberis, J., & Buckley, R. P. (2020). The evolution of fintech: A new post-crisis paradigm? *Georgetown Journal of International Law*, 47, 1271-1319.
22. Arner, D. W., Buckley, R. P., Zetsche, D. A., & Veidt, R. (2020). Building a Fintech Strategy: The Four Pillars of Financial Inclusion. *Journal of Financial Regulation and Compliance*, 28(1), 52–68.
23. Ashrafi, D. M., Dovash, R. H., & Kabir, M. R. (2022). Determinants of fintech service continuance behavior: Moderating role of transaction security and trust. *Journal of Global Business & Technology*, 18(2).
24. Asif, M., Ghosh, D., & Iqbal, T. (2023). A study on the impact of FinTech and digital financial services on financial inclusion in India. *Journal of Financial Services Marketing*, 28(1), 45–58.



25. Asif, M., Khan, M. N., Tiwari, S., Wani, S. K., & Alam, F. (2023). The impact of Fintech and digital financial services on financial inclusion in India. *Journal of Risk and Financial Management*, 16(3), 122.
26. Azimi, R. Digitalization of Women Led SMEs in Afghanistan.
27. Bacha, K., Almaiah, M. A., Al-Khasawneh, A. L., & Alfayad, M. (2025). Factors Influencing the Adoption of Digital Financial Services in Emerging Markets: A Case Study of Ethiopia. *SAGE Open*, 15(1).
28. Bacha, K., Almaiah, M. A., Al-Khasawneh, A. L., & Alfayad, M. (2025). Factors Influencing the Adoption of Digital Financial Services in Emerging Markets: A Case Study of Ethiopia. *SAGE Open*, 15(1).
29. Bakashaba, B., Bbaale, E., & Mayanja, R. (2024). Digital financial literacy and FinTech adoption among women entrepreneurs in sub-Saharan Africa. *Journal of African Business*, 25(1), 65–83.
30. Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.
31. Basar, S., Yildirim, S. O., & Kurtulmusoglu, F. B. (2024). Examining digital financial literacy as a driver of FinTech usage: Evidence from Turkey. *Journal of Financial Services Marketing*, 29(2), 95–107.
32. Basri, W., Sathye, M., & Yasmin, S. (2021). Fintech, Digital Financial Literacy and Financial Behaviour: A Bibliometric Analysis. *Qualitative Research in Financial Markets*, 14(4), 619–636
33. Bharathi S, V., Perdana, A., & Barikzai, S. Digital innovation at the intersection of financial inclusion and humanitarian aid: HesabPay's journey in Afghanistan. *Journal of Information Technology Teaching Cases*, 20438869251325867
34. Chand, A., Liu, D., Zulfiqar, M., Ullah, M. R., & Khan, M. J. (2025). Perceived quality in FinTech services: Expanding UTAUT2 and the DeLone and McLean Information System Success Models. *Business Process Management Journal*.
35. Chand, K., Tiwari, R., Gupta, A., Taneja, S., & Özen, E. (2025). How does perceived security influence mobile wallet users' behavior? A SEM investigation. *Managerial Finance*, 51(1), 146–165.
36. Chandra, S., Srivastava, S. C., & Theng, Y.-L. (2010). Evaluating the role of trust in consumer adoption of mobile payment systems: An empirical analysis. *Communications of the Association for Information Systems*, 27, 562–588.
37. Chen, M. A., Wu, Q., & Yang, B. (2021). How Valuable Is FinTech Innovation? *Review of Financial Studies*, 34(11), 5050–5104.
38. Chen, R., & Divanbeigi, R. (2019). Can regulation promote financial inclusion? *World Bank Policy Research Working Paper*, (8711).
39. Chin, K. Y., Zakaria, Z., Purhanudin, N., & Pin, C. T. (2021). A paradigm of TAM model in SME P2P financing. *International Journal of Economics & Management*, 15(3).
40. Chinoda, T., & Kapingura, F. M. (2024). Impact of regulatory frameworks on FinTech development in Africa.
41. Cosma, S., & Rimo, G. (2023). Fintech, financial inclusion, and social challenges: The role of financial technology in social inequality. *Fintech and Sustainability: How Financial Technologies Can Help Address Today's Environmental and Societal Challenges*, 107-128.
42. Da Afghanistan Bank. (2020). National financial inclusion strategy for Afghanistan.
43. Danishfar, S., Meena, R. P., & Gahlawat, A. (2024). An overview of the financial sector and the state of financial inclusion in Afghanistan: issues and hurdles. *Afghanistan: Issue and Hurdles, Focus WTO*, 26(1), 20-38.
44. Danladi, S., Prasad, M. S. V., Modibbo, U. M., Ahmadi, S. A., & Ghasemi, P. (2023). Attaining sustainable development goals through financial inclusion: exploring collaborative approaches to Fintech adoption in developing economies. *Sustainability*, 15(17), 13039.
45. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340
46. Demirgüç-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2022). *The Global Findex Database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19*. Washington, DC: World Bank Publications.
47. Demirgüç-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2022). *The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19*. World Bank Group
48. Demirgüç-Kunt, Asli, Leora Klapper, Dorothe Singer, and Saniya Ansar. 2022. *The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19*. Washington, DC: World Bank Publications



49. Easter, S., Azhar, M., & Khalil, A. (2024). Enhancing financial inclusion through digital literacy: The moderating effect of FinTech awareness. *Information Technology for Development*, 30(2), 183–202.
50. Edo, J. J. R., Soma, A. M., & Sitorus, P. M. (2024). Factors influencing FinTech adoption among MSMEs in Bandung, West Java, Indonesia. *JASF: Journal of Accounting and Strategic Finance*, 7(2), 283–299.
51. Efendi, B., Ekasari, S., Sani, I., Wakhidah, E. N., & Munizu, M. (2024). Analysis of the influence of behavioral intention, perceived ease of use and perceived usefulness on actual usage of digital wallet customers. *JEMSI (Jurnal Ekonomi, Manajemen, Dan Akuntansi)*, 10(1), 209–214.
52. Elangovan, N., & Babu, K. (2024). Digital Financial Literacy and Financial Inclusion in India. *Indian Journal of Economics and Development*, 20(2), 1–9.
53. Elsaman, H., Dayanandan, R., Dawood, Z., & Al Akrabi, S. (2024). Navigating fintech innovation: Performance, trust, and risk factors in UAE's banking sector. *Journal of Eastern European and Central Asian Research (JEECAR)*, 11(2), 332–341.
54. Featherman, M. S., & Pavlou, P. A. (2003). Predicting e-services adoption: A perceived risk facets perspective. *International Journal of Human- Computer Studies*, 59(4), 451–474.
55. Fernando, E. (2024). The role of brand image and trust in the adoption of FinTech digital payment for online transportation. *Journal of Information Systems Engineering & Business Intelligence*, 10(1).
56. Feyen, E., Natarajan, H., & Saal, M. (2023). *Fintech and the future of finance: Market and policy implications*. Washington, DC: World Bank Publications.
57. Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 18(1), 39-50.
58. Garad, A., Surwanti, A., Al-Ansi, A. M., Riyadh, H. A., Alfaiza, S. A., & Al Iman, B. (2025). Users' intentions of adopting Fintech services: Analysis of trust and attitude elements. In *From digital disruption to dominance: Leveraging FinTech applications for sustainable growth* (pp. 103–119). Emerald Publishing Limited.
59. Gui, A., Siagian, F. P., Idres, N. F. B. M., & Chanda, R. C. (2024). Exploring the Role of Digital Financial Literacy in Promoting Financial Inclusion Among MSMEs in Indonesia. *Asian Journal of Economics and Banking*, 8(1), 74–93.
60. Gupta, K., Wajid, A., & Gaur, D. (2023). Determinants of continuous intention to use FinTech services: The moderating role of COVID-19. *Journal of Financial Services Marketing*, 1.
61. Gupta, V., & Sharma, A. (2020). FinTech in India: Pathways to financial inclusion. *International Journal of Emerging Markets*, 15(6), 1155–1172.
62. Hair Jr, J. F., Matthews, L. M., Matthews, R. L., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: updated guidelines on which method to use. *International Journal of Multivariate Data Analysis*, 1(2), 107-123.
63. Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European business review*, 31(1), 2-24.
64. Hasan, M., Rahman, M., & Hossain, M. (2024). Impact of digital literacy and FinTech services on financial inclusion in Bangladesh. *Journal of Economic Development*, 49(1), 45–66.
65. Hassan, M. S., Islam, M. A., Sobhani, F. A., Hassan, M. M., & Hassan, M. A. (2022). Patients' intention to adopt fintech services: a study on Bangladesh healthcare sector. *International Journal of Environmental Research and Public Health*, 19(22), 15302.
66. Hidayat-ur-Rehman, I., Alam, M. N., Bhuiyan, A. B., & Zulkifli, N. (2025). The FinTech adoption in rural areas of Pakistan: An application of SEM and ANN approach. *Asia-Pacific Journal of Business Administration*.
67. Huston, S. J. (2010). Measuring financial literacy. *Journal of Consumer Affairs*, 44(2), 296–316.
68. Hutapea, R. S., & Wijaya, E. (2021, November). Perceived risk, trust, and intention to use fintech service during the COVID-19 pandemic. In *2nd International Seminar of Science and Applied Technology (ISSAT 2021)* (pp. 656–661).
70. Ibrahim, S. (2022). Driving eco-innovation through green transformational leadership: The power of employee voluntary green behavior. *Qlantic Journal of Social Sciences and Humanities*, 3(2), 59-76.
71. Ibrahim, S., Waseem, M., & Scholar, I. P. (2025). Leading Green, Innovating Clean: Exploring the Path from Transformational Leadership to Eco-Innovation through Employee Behavior. *Journal of Business and Management Research*, 4(1), 995-1029.



72. Ibrahim, S., & Khan, R. U. (2025). FROM SHARING TO SHAPING: INVESTIGATING THE LINK BETWEEN KNOWLEDGE EXCHANGE AND INNOVATIVE WORK BEHAVIOUR AMONG EDUCATORS. *Journal of Business and Management Research*, 4(3), 1-14.
73. Ikwanto, A. N. P., & Indriani, F. (2024). The impact of perceived usefulness, perceived ease of use, and digital literacy on QRIS adoption. *Research Horizon*, 4(6), 281–290.
74. Islam, K. A., Hasan, Z., Tawfiq, T. T., Bhuiyan, A. B., & Faisal-E-Alam, M. (2024). Bank becomes cashless: Determinants of acceptance of mobile banking (fintech) services among banking service users. *Banks and Bank Systems*, 19(2), 30.
75. Jabbar, A., Ali, S., & Khattak, A. (2019). Fintech and Financial Inclusion in Pakistan: A Case Study Approach. *Asian Economic and Financial Review*, 9(2), 201–216.
76. Jagtiani, J., & Lemieux, C. (2017). Fintech Lending: Financial Inclusion, Risk Pricing, and Alternative Information. Federal Reserve Bank of Philadelphia Working Paper, No. 17-17.
77. Jangir, K., Sharma, V., Taneja, S., & Rupeika-Apoga, R. (2022). The moderating effect of perceived risk on users' continuance intention for FinTech services. *Journal of Risk and Financial Management*, 16(1), 21.
78. Jangir, R. S., Sharma, R., & Yadav, S. (2022). Assessing the Impact of Digital Financial Literacy on the Adoption of Digital Banking Services in India. *Journal of Financial Services Marketing*, 27(3), 167–177.
79. Jasin, M. (2022). The effect of perceived ease of use on behavior intention through perceived enjoyment as an intervening variable on digital payment in the digital era. *Journal of Industrial Engineering & Management Research*, 3(5), 127–133.
80. Jerene, W., & Sharma, D. (2020). The effect of e-finance service quality on bank customers' FinTech e-loyalty: Evidence from Ethiopia. *International Journal of E-Business Research*, 16(2), 69–83.
81. Jose, P. T., & Ghosh, P. (2025). Digital financial literacy and FinTech adoption among micro-entrepreneurs: Evidence from India. *Journal of Entrepreneurship and Innovation in Emerging Economies*, 11(1), 79–100.
82. Joy, A. M., Daniel, J. J., & Chatterjee, D. (2025). Exploring digital financial literacy and FinTech trust as predictors of inclusive financial behaviour. *Journal of Consumer Behaviour*, 24(2), 155–169.
83. Kakinuma, Y. (2022). Financial literacy and quality of life: A moderated mediation approach of Fintech adoption and leisure. *International Journal of Social Economics*, 49(12), 1713–1726.
84. Khan, H. H., Khan, S., & Ghafoor, A. (2023). Fintech adoption, the regulatory environment and bank stability: An empirical investigation from GCC economies. *Borsa Istanbul Review*, 23(1), 1263–1281.
85. Khan, M. A., Yousaf, S., & Tariq, M. (2024). Role of digital financial literacy and technological trust in FinTech adoption
86. Khan, S., Raza, S., & Abbas, Z. (2023). Digital financial literacy and FinTech adoption: Evidence from Pakistan. *Journal of Digital Banking*, 7(3), 123-137.
87. Khaber, A., Talukder, M. S., Bao, Y., & Hossain, M. N. (2023). Digital Financial Inclusion of the Poor: The Moderating Role of Fintech. *Information Technology for Development*, 29(3), 530–553.
88. Khoiriyah, S. U., Zulkarnaeni, A. S., & Halim, M. (2023). Pengaruh persepsi manfaat, persepsi kemudahan, dan persepsi keamanan terhadap minat menggunakan financial technology pada aplikasi Dana. *JRAK (Jurnal Riset Akuntansi dan Bisnis)*, 9(1), 70–79.
89. Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of e-Collaboration (ijec)*, 11(4), 1-10.
90. Kulshrestha, P. (2023). Financial education and digital inclusion: Unlocking the potential of FinTech. *Indian Journal of Finance*, 17(7), 11–26.
91. Kurniasari, F., & Abd Hamid, N. (2020). The effect of perceived usefulness, perceived ease of use, trust, attitude and satisfaction into continuance of intention in using Alipay. *Management & Accounting Review (MAR)*, 19(2), 132–150.
92. Kurniasari, F., & Utomo, P. (2019). The effects of perceived usefulness, perceived ease of use, perceived security and risk-free on the customer decision to borrow using P2P lending. *International Journal of Innovation, Creativity and Change*, 5(6), 1164–1175.
93. Lai, C., Mahmud, I., & Wong, L. (2022). Digital divide and FinTech adoption: Implications for financial inclusion. *Technological Forecasting and Social Change*, 179, 121632.



95. Lakshmanan, K., & Shanmugavel, K. (2025). Financial Inclusion and Digital Financial Literacy: A Study of Urban Low-Income Households in Tamil Nadu, India. *Asian Economic and Financial Review*, 15(1), 59–72.
96. Le, T. D., Ngo, L. V., Trinh, T. T., & Phan, Q. P. T. (2020). Developing Digital Financial Literacy for the Advancement of Financial Inclusion in Vietnam. *International Journal of Bank Marketing*, 38(5), 1107–1128.
97. Lontchi, S. M., Ndzana, M. S., & Fouda, M. B. (2023). Enhancing FinTech adoption through digital skills training in Cameroon. *African Journal of Science, Technology, Innovation and Development*, 15(5), 539–551.
98. Lusiana, M., Yuli, A. S., & Taufiqur, R. (2025). Effect of perceived ease of use on intention to reuse Flip via perceived usefulness in Islamic business. *Research Horizon*, 5(2), 283–296.
99. Madan, K., & Yadav, R. (2016). Behavioural intention to adopt mobile wallet: A developing country perspective
100. Mahmoud, M. A., Ma'aji, M. M., Abdullahi, M. S., Karaye, A. B., & Garba, A. S. (2025). Factors influencing the Islamic FinTech acceptance: Moderating role of Islamic financial literacy. *Journal of Islamic Accounting and Business Research*.
101. Makina, D. (2019). The potential of FinTech in enabling financial inclusion. In D. Makina (Ed.), *Extending financial inclusion in Africa* (pp. 299–318). Palgrave Macmillan.
102. Mandari, H., & Koloseni, D. (2025). Enhancing Financial Inclusion Through Digital Financial Literacy in Tanzania: A Study of Youth and Women. *African Journal of Economic Review*, 13(1), 91–109.
103. Mohamed, H. A., & Otake, T. (2025). The role of Islamic FinTech in digital financial inclusion and sustainable development post COVID-19: Cross-country analysis. *International Journal of Islamic and Middle Eastern Finance and Management*.
104. Mohammady, K., & Vepa, S. (2025). Assessing gender disparities in formal financial services utilization in Afghanistan: Evidence from the Global Findex Database. *South Asian Journal of Social Studies and Economics*, 22(3), 166–180.
105. Mohammady, K., & Vepa, S. (2025). Determinants of Formal Financial Services Utilization in Afghanistan. *Accounting and Finance Studies*, 5(2), 122–137.
106. MOHIUDDIN, M., Islam, S., & Kowsar, M. M. (2025). DIGITIZATION IN RETAIL BANKING: A REVIEW OF CUSTOMER ENGAGEMENT AND FINANCIAL PRODUCT ADOPTION IN SOUTH ASIA. *ASRC Procedia: Global Perspectives in Science and Scholarship*, 1(01), 10–63125.
107. Morgan, P. J. (2022). Fintech and Financial Inclusion in ASEAN and India. *Asian Economic Policy Review*, 17(1), 42–58.
108. Morgan, P. J., Huang, B., & Trinh, L. Q. (2020). The need to promote digital financial literacy in the digital age. Tokyo: T-20 Japan.
109. Mudeer, M. (2025). India Pakistan cyber skirmishes and Afghan digital infrastructure: A realist analysis of cross-border cyber spillovers in post-Taliban Afghanistan. *Wah Academia Journal of Social Sciences*, 4(1), 1360–1379.
110. Muneeza, A., & Mustapha, Z. (2021). FinTech in Islamic Finance: Theory and Practice. *ISRA International Journal of Islamic Finance*, 13(1), 85–100
- Musa, S., Zakaria, A., & Othman, R. (2025). The mediating role of financial attitude between digital financial literacy and inclusive finance among youth. *Journal of Behavioral and Experimental Finance*, 35, 100798.
111. Mushtaq, R. (2024). Digital Financial Literacy and Fintech Adoption Among Women Entrepreneurs in Pakistan. *Journal of Entrepreneurship in Emerging Economies*, 16(2), 123–145
112. Emerging Economies, 16(2), 123–145
113. Najib, M., Ermawati, W. J., Fahma, F., Endri, E., & Suhartanto, D. (2021). Fintech in the small food business and its relation with open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(1), 88.
114. Naseri, M. F., Frugh, Q. A., & Shamsi, Q. (2025). Challenge and Opportunity of Mobile Banking in Afghanistan. *Journal of Technology and Informatics (JoTI)*, 7(1), 52–61.
115. Nasir, A., Jan, N., Pamucar, D., & Khan, S. U. (2023). Analysis of cybercrimes and security in FinTech industries using the novel concepts of interval-valued complex q-rung orthopair fuzzy relations. *Expert Systems with Applications*, 224, 119976.
116. Ng, A. W., & Kwok, B. K. B. (2017). Emergence of Fintech and cybersecurity in a global financial centre. *Journal of Financial Regulation and Compliance*, 25(4), 422–434.



117. Nguyen, T. H., & Dao, A. T. (2024). Digital Financial Literacy and Its Impact on FinTech Adoption in Vietnam. *Journal of Asian Business and Economic Studies*, 31(1), 45–63.
118. Nguyen, T., Le, H., & Pham, M. (2024). IT infrastructure quality and FinTech service satisfaction in Vietnam. *Journal of Asian Business Studies*, 18(1), 35-50.
119. Noreen, F. (2023). Exploring the Influence of Perceived Trust and Its Determinants on Fintech Adoption Intentions: Insights from Pakistan. *Pollster Journal of Academic Research*, 10(1), 71-82.
120. Noreen, S., Hunjra, A. I., & Maqbool, A. (2022). Government Initiatives and FinTech-Driven Financial Inclusion in Pakistan. *International Journal of Financial Studies*, 10(4), 110–123.
121. Normawati, N., Yusuf, M., & Hasan, M. (2025). Digital financial literacy and its impact on MSME access to FinTech credit in Indonesia. *Asian Economic and Financial Review*, 15(1), 41–56.
122. 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
123. Nunnally, J., & Bernstein, I. (1994). *Psychometric Theory* 3rd edition (MacGraw-Hill, New York).
124. Odoom, R., & Kosiba, J. P. B. (2020). Digital Financial Services Adoption: Role of Trust, Perceived Risk and Digital Literacy. *International Journal of Bank Marketing*, 38(7), 1595–1615.
125. Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, 17(4), 126.460–469
127. Omowole, B. M., Urefe, O., Mokogwu, C., & Ewim, S. E. (2024). Integrating fintech and innovation in microfinance: Transforming credit accessibility for small businesses. *International Journal of Frontline Research and Reviews*, 3(1), 090-100.
128. Opiyo, R., Nyachae, S. M., & Pyoko, O. M. (2024). Regulatory influence on FinTech use among SMEs in Kenya.
129. Osman, N. H., Hashim, N. A., & Hussin, N. (2021). Government Support and FinTech Adoption: Evidence from Malaysia.
130. Özbek, A. (2025). Digital Financial Literacy and Financial Behavior: Evidence from Turkey. *Journal of Behavioral and Experimental Finance*, 35, 100812.
131. Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*, 18(4), 329–340.
132. Ozili, P. K. (2018). Impact of Digital Finance on Financial Inclusion and Stability. *Borsa Istanbul Review*, 18(4), 329–340.
133. Pal, A., Herath, T., & Rao, H. R. (2020). Contextual Determinants of the Use of Fintech Services in India: Generational and Demographic Differences. *Information Systems Frontiers*, 22, 457–475.
134. Paul, M. (2022). India still among countries with poor access to banking: Report. *Down to Earth*.
135. Pelkova, K., Culkova, K., & Pizar, P. (2023). Financial literacy and FinTech services adoption in the Visegrad Group countries. *Journal of Risk and Financial Management*, 16(2), 85.
136. Pratama, J. (2021). Analysis of factors affecting trust on the use of FinTech (P2P lending) in Indonesia. *Jurnal Sisfokom (Sistem Informasi Dan Komputer)*, 10(1), 79-85.
137. Prete, A. L. (2022). Digital and financial literacy as determinants of digital payments and personal finance. *Economics Letters*, 213, 110378.
138. Putritama, A. (2019). The Role of Digital Financial Literacy in the Use of Digital Payment: A Study on Indonesian Consumers. *Journal of Economics, Business, and Accountancy Ventura*, 22(3), 333–343
139. Pyoko, O. M., Akims, M. A., Nyachae, S. M., & Mbugua, L. (2023). Financial technology and financial inclusion of small and medium enterprises in Kenya: Do government regulations really matter? *Journal of Finance and Accounting*, 7(8), 34-46.
140. 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.
141. Rahman, M. M., & Riaz, S. (2022). The impact of financial inclusion and fintech on behavioral finance among MSMEs: Evidence from Indonesia. *Journal of Small Business and Enterprise Development*, 29(1), 123-142.
142. Rahmawati, F., & Merlinda, S. (2024). The effect of perceived benefits, ease of use, and risk on



143. Ramindran, M., & Lee, H. A. (2024). The Mediating Role of Digital Financial Literacy in FinTech Use Among Youth in Malaysia. *Asia-Pacific Journal of Innovation in Hospitality and Tourism*, 13(1), 45–62.
144. Ravikumar, T., B. Suresha, N. Prakash, Kiran Vazirani, and T. A. Krishna. 2022. Digital financial literacy among adults in India: Measurement and validation. *Cogent Economics & Finance* 10: 2132631.
145. Ravikumar, T., Suresha, B., Prakash, N., Vazirani, K., & Krishna, T. A. (2022). Digital financial literacy among adults in India: Measurement and validation. *Cogent Economics & Finance*, 10(1), 2132631.
146. Risman, A., Ali, A. J., Soelton, M., & Siswanti, I. (2022). The behavioral finance of MSMEs in the advancement of financial inclusion and financial technology (Fintech).
147. Rizvee, A. M., Rahman, M. M., Hossain, M., & Rahman, M. A. (2025). Impact of Digital Financial Literacy on Financial Inclusion in Bangladesh: Evidence from the Rural Poor. *Global Journal of Emerging Market Economies*, 17(1), 89–105.
148. Rosyadah, K., Budiandriani, B., & Hasrat, T. (2021). The Role of Fintech: Financial Inclusion in MSME's: Case Study in Makassar City. *Jurnal Manajemen Bisnis*, 8(2), 268-275.
149. Ryu, H. S., & Ko, K. S. (2020). Sustainable development of Fintech: Focused on uncertainty and perceived quality issues. *Sustainability*, 12(18), 7669.
150. Sa'diyah, M. H., & Soegoto, D. S. (2021). The effect of perceived security towards intention to use digital payment through a trust. In *Proceeding of International Conference on Business, Economics, Social Sciences, and Humanities* (Vol. 4, pp. 233–238).
151. Sajid, R. N., Ibrahim, S., Qureshi, J. A., & Rooh, S. (2025). THE MODERATING ROLE OF COMPETITIVENESS ON THE EFFECT OF STRATEGY FORMULATION PROCESS ON INNOVATION PERFORMANCE DIMENSIONS IN MICROFINANCE BANKS OF PAKISTAN. *Center for Management Science Research*, 3(3), 835-845.
152. Sajid, R. N., Rooh, S., Qureshi, J. A., & Ibrahim, S. (2025). THE IMPACT OF PRICE COMPETITION ON PROFITABILITY AND MARKET SHARE DYNAMICS IN PAKISTAN'S TELECOM SECTOR: A QUANTITATIVE ANALYSIS. *Policy Research Journal*, 3(6), 405-410.
153. Salah, O. H., & Ayyash, M. M. (2024). Understanding user adoption of mobile wallet: Extended TAM with knowledge sharing, perceived value, perceived privacy awareness and control, perceived security. *VINE Journal of Information and Knowledge Management Systems*.
154. Salampasis, D., & Mention, A.-L. (2018). FinTech: Harnessing innovation for financial inclusion. In A.-L. Mention & M. Torkkeli (Eds.), *Handbook of Research on FinTech and Financial Services Innovation* (pp. 1–21). Springer.
155. Samandar, R. (2025). The state of telecommunication and Internet in Afghanistan and its impact on the country's socio-economic and digital development. *Afghan Journal of Science*, 2.
156. Sanchez, J. A. R., & Tanpoco, M. (2023). Digital Financial Literacy and Inclusion Among Smallholder Farmers in the Philippines. *Asian Journal of Agriculture and Development*, 20(2), 123–134.
157. Sen, A. (1999). *Development as freedom*. Oxford University Press.
158. Senyo, P. K., & Osabutey, E. L. C. (2020). Unearthing antecedents to financial inclusion through FinTech innovations. *Technovation*, 98, 102155.
159. 102155.
160. Shaikh, A. A., Glavee-Geo, R., Karjaluo, H., & Hinson, R. E. (2023). Mobile money as a driver of digital financial inclusion. *Technological Forecasting and Social Change*, 186, 122158.
161. Shaikhzada, N., Rahmani, L., Asghari, T., Hosseini, M., & Quraishi, T. (2025). Challenges and Opportunities for Afghan Women in the Digital World in Afghanistan. *International Journal of Applied Research and Sustainable Sciences*, 3(3), 261-272.
162. Shaikhzada, N., Rahmani, L., Asghari, T., Hosseini, M., & Quraishi, T. (2025). Challenges and Opportunities for Afghan Women in the Digital World in Afghanistan. *International Journal of Applied Research and Sustainable Sciences*, 3(3), 261-272.
163. Sharma, R., Gupta, S., & Kumar, A. (2023). Fintech and Financial Inclusion: Evidence from South Asia. *Journal of Financial Innovation and Inclusion*, 7(1), 45–60.



164. Sharma, V., Jangir, K., Gupta, M., & Rupeika-Apoga, R. (2024). Does service quality matter in FinTech payment services? An integrated SERVQUAL and TAM approach. *International Journal of Information Management Data Insights*, 4(2), 100252.
165. Sharma, V., Taneja, S., Gupta, M., & Ozen, E. (2023). Impact of service quality on behavioural intention to use fin tech payment services: An extension of SERVEQUAL model. *Asia Pacific Journal of Information Systems*, 33(4), 1093–1117.
166. Singh, A., & Sharma, R. (2024). Regulatory support and FinTech adoption: A study in India. *Journal of Financial Regulation and Compliance*, 32(1), 88-105.
167. Tang, Y. M., Chau, K. Y., Hong, L., Ip, Y. K., & Yan, W. (2021). Financial innovation in digital payment with WeChat towards electronic business success. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(5), 1844–1861.
168. Tulcanaza-Prieto, A. B., Maciel, C. L., & Oliveira, D. S. (2025). FinTech literacy and digital financial inclusion: A global perspective. *Journal of International Development*, 37(1), 112–134
169. Umar, U. H., Baita, A. J., Hamadou, I., & Abduh, M. (2025). Digital finance and SME financial inclusion in Africa. *African Journal of Economic and Management Studies*, 16(1), 18-33.
170. Ur Rehman, M., Mehmood, T., & Nasir, M. (2023). Digital financial literacy as a tool for inclusive finance in Pakistan. *Pakistan Economic and Social Review*, 61(2), 203–220.
171. Utami, R., & Soesetyo, H. (2023). The important role of education in moderating the impact of perceived security, social influence, and platform reputation on investment intention on SMEs with peer-to-peer lending platform. *International Journal of The Newest Social and Management Research*, 1(1), 1–11.
172. Vasquez, O., & San-Jose, L. (2022). Ethics in fintech through users' confidence: Determinants that affect trust. *Ramon Llull Journal of Applied Ethics*, (13).
173. Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425–478.
174. Verma, P. (2023). Examining the service quality of fintech services: Empirical evidence from Indian public and private banks. *International Journal of Business Excellence*. (Advance online publication).
175. Vijayagopal, P., Jain, B., & Ayinipully Viswanathan, S. (2024). Regulations and Fintech: A comparative study of developed and developing countries. *Journal of Risk & Financial Management*, 17(8).
176. Vyas, V., & Jain, P. (2021). Role of digital economy and technology adoption for financial inclusion in India. *Indian Growth and Development Review*, 14(2), 302–324.
177. Wahyudi and Lingga (2021) also reinforced this by identifying PEOU as a key predictor of FinTech adoption among micro and small enterprises, alongside perceived usefulness and financial literacy
178. Wahyudi, K. D. K., & Lingga, M. (2021). The role of financial literacy in enhancing perceived usefulness and perceived ease of use in FinTech adoption: Evidence from micro and small enterprises in Tangerang (Doctoral dissertation, Swiss German University).
179. Wang, L., Zhang, X., & Li, Y. (2024). The influence of trust and perceived risk on mobile payment adoption in rural China. *Information Systems Journal*, 34(1), 77-96.
180. Widiyatmoko, A., Nugroho, Y., & Hartono, S. (2024). Digital financial literacy, FinTech trust, and financial inclusion in rural Indonesia. *International Journal of Emerging Markets*, ahead-of-print
181. Wulandari, P., & Kassim, S. (2016). Issues and Challenges in Financing the Poor: Case of Baitul Maal wa Tamwil in Indonesia. *International Journal of Bank Marketing*, 34(2), 216–234.
182. 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.
183. Yadav, M., & Shankar, R. (2021). FinTech and rural financial inclusion in India: Empirical evidence. *Information Technology for Development*, 27(3), 487–504.
184. Yang, T., & Zhang, X. (2022). FinTech adoption and financial inclusion: Evidence from household consumption in China. *Journal of Banking & Finance*, 145, 106668.



185. Yang, Tong, and Xun Zhang. 2022. FinTech adoption and financial inclusion: Evidence from household consumption in China. *Journal of Banking & Finance* 145: 106668.
186. Yeyoumo, A. K., Asongu, S. A., & Agyemang-Mintah, P. (2023). Fintechs and the financial inclusion gender gap in Sub-Saharan African countries. *Women's Studies International Forum*, 97, 102695.
187. Zahidi, S., & Khan, W. (2019). Financial inclusion and its effect on alleviation of poverty: A case of Afghanistan. *Kardan Journal of Economics and Management Sciences*, 2(3), 15-26.
188. Zaimovic, A., Smajic, M., & Guso, E. (2025). Does digital financial literacy foster FinTech adoption? Evidence from Balkan SMEs. *South East European Journal of Economics and Business*, 20(1), 35–47.
189. Zait, A., & Berteau, P. E. (2014). Financial literacy—Conceptual definition and proposed approach for a measurement instrument. *Journal of Accounting and Management*, 4(3), 37–42
190. Zavolokina, L., Dolata, M., & Schwabe, G. (2016). FinTech—What's in a Name? *Proceedings of the International Conference on Information Systems (ICIS 2016)*.
191. Zena, F., & Susanto, P. (2022). The effect of perceived usefulness, perceived ease of use, trust, enjoyment and perceived security on intention to use e-wallet on SME customers. *Journal of Small and Medium Enterprises*, 1(2).
192. Zhang, W., Siyal, S., Riaz, S., Ahmad, R., Hilmi, M. F., & Li, Z. (2023). Data security, customer trust and intention for adoption of Fintech
193. services: An empirical analysis from commercial bank users in Pakistan. *Sage Open*, 13(3), 21582440231181388. Zhao, H., Khaliq, N., Li, C., Rehman, F. U., & Popp, J. (2024). Exploring trust determinants influencing the intention to use fintech via SEM approach: Evidence from Pakistan. *Heliyon*, 10(8), e04867.
194. Zins, A., & Weill, L. (2016). The determinants of financial inclusion in Africa. *Review of Development Finance*, 6(1), 46–57.

Cite this Article: Chandrasena, H.M., Sdevin, A.S., Priyadarshani, T.M.D. (2025). Impact of FinTech Adoption on Financial Inclusion among Small and Medium Enterprises in Sri Lanka: A Mediated Moderation Analysis of Digital Financial Literacy and Perceived Regulatory Support. International Journal of Current Science Research and Review, 8(11), pp. 5454-5478. DOI: <https://doi.org/10.47191/ijcsrr/V8-i11-07>