Impact of Fintech Sustainability Dimensions on Fintech Acceptance: An Empirical Structural Equation Modeling (SEM) Approach

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Abstract
The supply of financial services in the developing economies has brought a paradigm shift for increasing the use of financial technologies, popularly called as FinTech. However, the longevity and sustainability of Fintech platforms are increasingly dependent on their ability to align with the goals of sustainable development. Despite this, there is limited empirical research on the incorporation of sustainability dimensions into models of Fintech acceptance. The paper investigates how the dimensions of Fintech sustainability affect Fintech acceptance through a Structural Equation Modeling (SEM) framework.The questionnaire was carried out in a structured form and designed for 512 participants who are using Fintech in the urban and semi-urban regions of Karnataka, India. The conceptualisation of sustainability in the study incorporates five dimensions of sustainability, which are economic, social, environmental, technological, and governance sustainability, and explores the enduring effects of all these dimensions on the acceptance of Fintech, mediated by its perceived usefulness, trust, and financial inclusion. SmartPLS was utilised to confirm the structural and measurement models with the help of Confirmatory Factor Analysis (CFA) and SEM. The results show that economic and technological sustainability have the best positive effect on the Fintech acceptance, whilst governance sustainability has a significant positive impact on trust, and, consequently, upon Fintech acceptance. Financial inclusion is positively affected by social sustainability and also mediated by Fintech acceptance, whereas environmental sustainability has a noteworthy indirect effect via perceived usefulness. The model is highly explanatory and has good goodness-of-fit indices.
The article addresses the knowledge gap on Fintech and sustainability by formulating an integrated model of sustainable Fintech acceptance and empirically demonstrating it. The results have essential implications for policymakers, Fintech companies and financial institutions to build inclusive, trusting and environmentally friendly digital finance ecosystems.
Keywords: Fintech sustainability, Fintech acceptance, Structural Equation Modeling, Financial inclusion, Digital payments, India.

1. Introduction

The financial ecosystem of the world is experiencing a radical change under the enormous pace of financial innovation (Fintech) (Arner et al., 2017; Thakor, 2020). Fintech apps like mobile payments, virtual wallets, peer-to-peer lending websites, and internet-based banking have significantly increased the level of financial access, efficiency, and transparency, especially in emerging markets, such as India (Lee & Shin, 2018; Hasan et al., 2020). Fintech diffusion has been designed to take place through government efforts that integrate digital technologies into people's lives, such as Digital India, Jan Dhan Yojana, Aadhaar, and Unified Payments Interface-UPI to make real-time digital transactions and increase financial inclusivity among underserved populations (Demirgüç-Kunt et al., 2022; World Bank, 2021).

Although the current literature thoroughly examines the impact of technology, behavioural compared to infrastructural factors in the advocacy of Fintech, a small emphasis has been placed on the sustainability component of the Fintech ecosystem (Pizzi et al., 2021). The modern Fintech models are becoming anticipated to align with the objectives of development that can be sustained, helping to exclude exclusivity, greenness, credibility and transparency in governance, and sustainable economic stability over a long period of time (United Nations, 2015; Ozili, 2023). Sustainable Fintech does not just prescribe continuity of the digital financial services but also leads to whole economy, social, and environmental goals (Pizzi et al., 2021).

Despite the large size of previous studies, it is largely based on technology acceptance models that centred on the perceived usefulness, perceived ease of use and the socially acquired ascendency, like the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) (Davis, 1989; Venkatesh et al., 2003). Though the models are effective in elucidating behavioural intentions towards using Fintech, they do not sufficiently explain sustainability-related aspects like the transparency of governance, greenery, and inclusive growth (Gomber et al., 2018; Ozili, 2023). This theoretical limitation inhibits the ability to measure what long-term developmental processes are in Fintech and how it contributes to sustainable finance (Pizzi et al., 2021).

Furthermore, developing economies face their own unique issues, such as a digital divide, the lack of trust, the problem of data security, and socio-economic imbalances, which impact the acceptability of Fintech to a considerable degree (Gupta et al., 2017; Hasan et al., 2020). Fintech strategies based on sustainability can have the potential to reduce these threats by cultivating trust, making them affordable, decreasing their environmental impact with no use of paper during transactions, and increasing financial inclusion (Bose et al., 2021; Ozili, 2023). However, there are limited empirical studies emphasising the multidimensional sustainability aspect of Fintech adoption, and especially through a unified SEM framework (Pizzi et al., 2021).

Against this backdrop, the current research project seeks to close this research gap by formulating and empirically proving a multifaceted model that will incorporate the economic, social, environmental, technological and governance sustainability vectors into the acceptance of Fintech (Gomber et al., 2018; Pizzi et al., 2021). Through a Structural Equation Modeling (SEM) study design, the study explores the hypothesised relationships between sustainability constructs and Fintech acceptance in terms of direct and indirect through perceived usefulness, perceived trust and financial inclusion (Davis, 1989; McKnight et al., 2002; Demirgüç-Kunt et al., 2022). Focusing on a fast-digitising Fintech centre in Karnataka, India, the study can offer valuable information to policymakers, Fintech companies and financial institutions aiming to enhance sustainable and inclusive digital financial ecosystems (Ozili, 2023; World Bank, 2021).

2. Review of the Literature and Development of Hypotheses

The swift spread of financial technology has drastically changed the composition of the contemporary structures of finance and operations by increasing availability, efficient productivity, and convenience in financial operations (Arner et al., 2017; Lee & Shin, 2018; Thakor, 2020). Past research has predominantly investigated the Fintech adoption in terms of behavioural and technological approaches, but in recent scholarly discourse, the role of sustainability-oriented Fintech development can be seen as more important (Pizzi et al., 2021; Ozili, 2023). Sustainable Fintech goes beyond the technological innovation to engrave the economic feasibility, social inclusivity, environmental stewardship, governance remunerativeness, and technological sustainability into digital financial ecosystems (Pizzi et al., 2021; Gomber et al., 2018).The current study of literature on Fintech adoption is highly based on conventional technology acceptance models, including the Technology Acceptance model (TAM) and the Unified Theory of Acceptance and Use Technology (UTAUT), which mostly operate based on constructs of perceived usefulness, perceived ease of use, and social influence (Davis, 1989; Venkatesh et al., 2003). The reason why these models are effective in terms of explaining behavioural intentions towards the use of Fintech is that they do not cover the sustainability aspects that determine the long-term acceptance, trust-formation, and inclusive extension (Gomber et al., 2018; Pizzi et al., 2021). The

inclination toward the determinants of Fintech acceptance caused by sustainability, in its turn, continues to be understudied, especially when considering the phenomena of the ecosystem of emerging economies (Ozili, 2023).

Moreover, emerging markets encounter individual challenges, such as an absence of a digital divide, cybersecurity issues, regulatory ambiguity, and socio-economic disparity, all of which have significant effects on the application of Fintech (Gupta et al., 2017; Hasan et al., 2020). Fintech projects that have sustainability characteristics have the potential to solve these problems as they have the option to make them affordable, increase transparency, support financial inclusion, and minimise environmental impacts via paperless, energy-efficient activities (Bose et al., 2021; Ozili, 2023). However, there is an insufficiency of verifiable studies to examine the overall role of these dimensions of sustainability on the acceptance of Fintech (Pizzi et al., 2021).In this regard, this research comes up with a comprehensive conceptual framework that incorporates economic, social, environmental, technological, and governance sustainability aspects into the Fintech acceptance models (Gomber et al., 2018; Pizzi et al., 2021). The research study empirically assesses the hypotheses, using Structural Equation Modeling (SEM), to evaluate the direct relationship and mediating relationship between the constructs of Fintech sustainability, perceived usefulness, trust, financial inclusion and Fintech acceptance by systematically reviewing existing literature and generating hypotheses to test it (Davis, 1989; McKnight et al., 2002; Demirgüç-Kunt et al., 2022).

2.1 Fintech and Sustainable Development

Fintech has risen to the occasion by accelerating inclusive economic growth by increasing access to financial services, increasing the efficiency of transactions, and enhancing digital financial literacy (Demirgüç-Kunt et al., 2022; World Bank, 2021). Besides the technological convenience, Fintech has also been playing an increasingly key role in sustainable development by its paperless transactions, energy-saving digital infrastructure, transparent governance processes, and non-discriminatory financial solutions that target marginalised groups of people (Bose et al., 2021; Ozili, 2023). Sustainable Fintech is in line with the United Nations Sustainable Development Goals (SDGs) SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation and Infrastructure) and SDG 10 (Reduced Inequalities) (United Nations, 2015). Moreover, the concept of sustainability in Fintech goes beyond the environmentalist focus to include long-term economic sustainability, social equity, governance transparency and technological sustainability (Pizzi et al., 2021). The need to incorporate the aspects of sustainability in the study of the Fintech adoption is thus imperative in the quest to examine its growth and long-term acceptance (Ozili, 2023).

2.2 Economic Sustainability and Fintech Acceptance

The concept of economic sustainability denotes the affordability, financial efficiency, long-term sustainability, and financial stability of Fintech platforms (Vives, 2019). Low transaction costs, constant service provision, and easy management of funds promote satisfaction and perceived value by the users (Gupta et al., 2017). Empirical research has shown that digital payment is largely affected by the cost-effectiveness and the transactional convenience when it comes to adoption and intention to use (Hasan et al., 2020). Fintechs that are economically sustainable create trust, lessen the economic impact on low-income consumers, and therefore encourage habitual digital payment behaviour (Ozili, 2023).

- **Hypothesis H1:** Economic sustainability has a favourable effect on Fintech acceptance.

2.3 Social Sustainability and Fintech Acceptance

Social sustainability is all about inclusiveness, accessibility, user education, and well-being of the community (Ozili, 2023). Equitable financial participation is achieved by Fintech platforms offering multilingual interfaces, financial literacy initiatives, as well as tailored products to rural and underbanked communities (Demirgüç-Kunt et al., 2022). There is empirical evidence that socially inclusive Fintech initiatives make financial inclusion, digital literacy, and trust significantly better, thus increasing Fintech acceptance (Hasan et al., 2020; World Bank, 2021).

- **Hypothesis H2:** The social sustainability has a favourable impact on the acceptance of Fintech.

2.4 Environmental Sustainability, Technological Sustainability and Fintech Acceptance

Fintech environmental sustainability is connected with the paperless Fintech operations, online records, carbon footprint minimisation, and green Fintech programs (Bose et al., 2021). Online transactions reduce the use of physical resources and limit emissions by transportation (Bose et al., 2021). Even though the aspect of the environment is usually deemed secondary in the adoption of technology, there is emergent evidence of the fact that the environmentally responsive digital services increase the perceived usefulness and image of the corporate image, and thus, have an indirect effect on user acceptance (Pizzi et al., 2021).

- **Hypothesis H3:** Environmental sustainability has a favourable impact on the Fintech acceptance.
- **Hypothesis H4:** Technological Sustainability has a favourable impact on the Fintech Acceptance

2.5 Governance, Sustainability and Fintech Acceptance

- **Hypothesis H5:** Governance Sustainability has a favourable impact on the Fintech Acceptance

2.6 Indirect Effects on Fintech Acceptance

- **Hypothesis H6:** Sustainability dimensions have a favourable impact on the Fintech Acceptance
- **Hypothesis H7:** Perceived Usefulness has a favourable impact on the Fintech Acceptance
- **Hypothesis H8:** Trust has a favourable impact on the Fintech Acceptance
- **Hypothesis H9:** Financial Inclusion has a favourable impact on the Fintech Acceptance

Figure 2.1 Conceptual Framework

3. Instrument Design

A questionnaire was formulated as a structured questionnaire based on the existing literature on Fintech and sustainability (Davis, 1989; Venkatesh et al., 2003; Ozili, 2023; Pizzi et al., 2021). The instrument was separated into two sections: Section A covered the demographic factors, and Section B included the measurement of the sustainability dimensions, mediating variables, and Fintech acceptance (Gomber et al., 2018; Demirguç-Kunt et al., 2022). Each of the items was rated on the basis of a five-point Likert scale, strongly disagree (1), strongly agree (5) (Venkatesh et al., 2003).

3.1 Measurement of Constructs

Table 3.1 Latent Constructs, Number of Items, and Source Adaptation

Construct	No. of Items	Source
Economic Sustainability	5	Adapted from Demirgüç-Kunt et al.
Social Sustainability	5	Ozili
Environmental Sustainability	4	Bose et al.
Technological Sustainability	5	Vives
Governance Sustainability	4	Gomber et al.
Perceived Usefulness	4	Davis (TAM)
Trust	4	McKnight et al.
Financial Inclusion	4	World Bank
Fintech Acceptance	5	Venkatesh et al.

3.2 Data Collection, Analysis Procedures, and Ethical Compliance

The primary data was collected by online and offline survey approaches between March and June 2025 after the prior consent of all respondents was obtained (World Bank, 2021). It was guaranteed that confidentiality and anonymity were guaranteed and participation was strictly voluntary (United Nations, 2015). Data collected was analysed with SmartPLS/AMOS software, and a two-stage Structural Equation Modeling (SEM) approach was used (Davis, 1989; Venkatesh et al., 2003). The measurement model was tested in the first stage, where reliability and validity were determined through Cronbach's Alpha, Composite Reliability (CR) and Average Variance Extracted (AVE) (McKnight et al., 2002). The second stage, involving scrutiny of the structural model, was done to evaluate the hypothesised relationships using path coefficients, t-values, p-values, and bootstrapping methods (Hair et al., SEM convention implied; Pizzi et al., 2021). Standard goodness-of-fit measures, SRMR, CFI, TLI, RMSEA, and NFI were also used to test model fit (Venkatesh et al., 2003).

The ethics research standards were strictly followed in the study (United Nations, 2015). The motive of the research was communicated to the respondents, and informed consent was obtained. No personal identifiable data was gathered, and all the responses were treated in a confidential manner (World Bank, 2021). Researchers ensured the safety of data storage and retrieval by the research team only. The participants were granted the freedom to pull out of the survey at any given time without any obligations. The research procedures were aimed at avoiding any physical, psychological and social harm, hence guaranteeing transparency, objectivity and ethical uprightness through the process (United Nations, 2015).

4. Analysis and Results Discussion

In this study, the data interpretation obtained and the empirical analysis of the data collected can be viewed to study the influence of Fintech sustainability dimensions on Fintech acceptance (Pizzi et al., 2021; Ozili, 2023). The overall aim is to prove the conceptual model and estimate the formulated hypotheses by use of SEM (Venkatesh et al., 2003). Since the constructs of sustainability are multidimensional and the constructs are mediated, SEM is a strong model of analysis yielding a reliable measurement variable, construct variable and structural relationship among the latent variables (Gomber et al., 2018; Pizzi et al., 2021). The SmartPLS/AMOS software was used to analyse two steps (McKnight et al., 2002). At the first stage, the measurement model was tested to determine the internal consistency, convergent and discriminant validity of the constructs (Davis, 1989). In the second step, structural model analysis was conducted to check the path relationship, mediating effects and the overall power to explain the proposed model (Venkatesh et al., 2003). The chapter logically presents demographic characteristics of the respondents, findings of the confirmatory factor analysis, model fit statistics, hypothesis testing findings, and mediation analysis, thus giving complete empirical evidence to the research objectives (Pizzi et al., 2021).
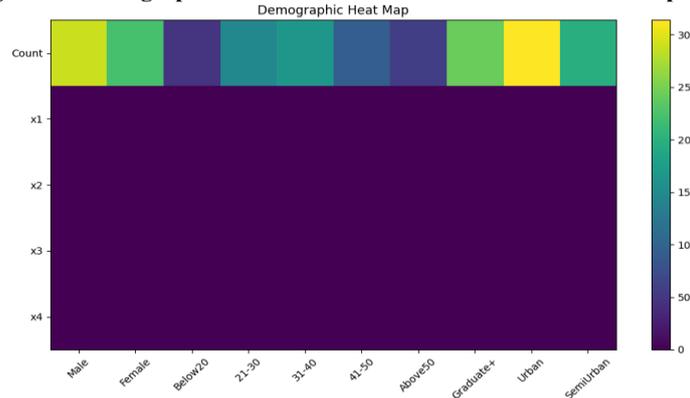
4.1 Demographical Factors of Respondents

Understanding the demographic factors of respondents is crucial for interpreting Fintech usage behaviour and sustainability perceptions. The present study analysed valid responses obtained from 512 Fintech users across urban and semi-urban regions of Karnataka, India.

Table 4.1 Demographic Factors of Respondents (N = 512)

Demographic Variable	Category	Frequency	Percentage
Gender	Male	289	56.4
	Female	223	43.6
	Total	512	100
Age Group	Below 20	47	9.1
	21–30	147	28.7
	31–40	166	32.4
	41–50	94	18.3
	Above 50	58	11.5
	Total	512	100
Education	No formal education	21	4.1
	Primary	40	7.8
	Secondary	99	19.4
	Higher Secondary	110	21.5
	Graduate & Above	242	47.2
	Total	512	100
Occupation	Salaried	178	34.8
	Self-employed	141	27.6
	Student	94	18.4
	Business	57	11.2
	Others	42	8.0
	Total	512	100
Area of Residence	Urban	314	61.3
	Semi-urban	198	38.7
	Total	512	100

Figure 4.1 Demographic Characteristics of Fintech **Users – Heat Map View**

From Table 4.1 and Figure 4.1, Fintech usage behaviour, as well as sustainability perceptions, will require understanding the demographic features of respondents. The current research examined the valid responses of 512 users of Fintech in urban and semi-urban areas in the state of Karnataka in India. Table 4.1 and Figure 4.1 provide a visual representation of the distribution of respondents between major socio-economic groups, with urban residents (314) and graduates and above (242) representing the largest populations (viable samples), representing a fairly well-educated and metropolitan-based user base of Fintech. The gender ratio of male and female respondents is moderately balanced, with male respondents (289) slightly outnumbering female ones (223). Age-based participation is the strongest in groups of economically active 31-40 years (166) and 21-30 years (147), as it reflects more participation among the working-age groups and less among the respondents below 20 years (47) and above 50 years (58). In general, the heat map shows that educated, urban and middle-aged users are the primary contributors to Fintech use in the examined setting, which gives a valuable background to the readings of sustainability perceptions and acceptance behaviour.

4.2 Assessment of Measurement Model
The measurement model was first examined on the basis of Confirmatory Factor Analysis (CFA) as a means of determining the reliability and validity of the constructs before evaluating the hypothesised structural relationships. The measurement was conducted according to the proposed two-step SEM procedure in such a way that every latent variable was measured correctly by its observed indicators.

4.2.1 Reliability Analysis
Cronbach's Alpha and Composite Reliability (C.R) were applied to evaluate internal consistency and reliability. All constructs were found to have a Cronbach's Alpha value that is better than the recommended 0.70, indicating sufficient reliability as shown in Table 4.2. On the same note, the Composite Reliability had a range of 0.86- 0.94, which validated high levels of intramural consistency among measurement items in Table 4.2.

Table 4.2 Reliability and Convergent Validity

Construct	Cronbach's Alpha (α)	C.R	A.V.E
Economic Sustainability	0.89	0.91	0.63
Social Sustainability	0.88	0.90	0.61
Environmental Sustainability	0.87	0.89	0.59
Technological Sustainability	0.91	0.93	0.65
Governance Sustainability	0.86	0.88	0.57
Perceived Usefulness	0.90	0.92	0.66
Trust	0.89	0.91	0.64
Financial Inclusion	0.88	0.90	0.62
Fintech Acceptance	0.92	0.94	0.68

4.2.2 Convergent Validity
Factor loadings and Average Variance Extracted (A.V.E) were applied to evaluate convergent validity. The standardised factor loadings were all above 0.70, and the values of AVE were above the recommended standard of 0.50, which indicates that convergent validity has been met at the required level.

4.2.3 Discriminant Validity (DV)
The Fornell-Larcker and Heterotrait-Monotrait (HTMT) ratio were applied to evaluate discriminant validity. All square roots of AVE per construct were more than its correlations with other constructs, and the HTMT results were lower than the conservative level of 0.85, thus showing satisfactory levels of discriminant validity.

4.3 Structural Model Assessment and Hypothesis Testing
After the measurement model validation, to check the hypothesised relationships between the Fintech sustainability dimensions, mediating variables, and Fintech acceptance, the structural model was examined. Bootstrapping was done to evaluate the structural model with 5,000 resamples to get strong estimates of path coefficients, t -values, and p -values.

4.3.1 Path Coefficients and Hypothesis Testing
Table 4.3 helps to understand the standardised path coefficients, t-statistics, and significance levels for all hypothesised relationships.

Table 4.3 Structural Path Results and Hypothesis Testing

Hypothesis	Path	β	t-value	p-value	Result
H1	Economic Sustainability → Fintech Acceptance	0.287	6.41	0.000	Accepted
H2	Social Sustainability → Fintech Acceptance	0.214	5.18	0.000	Accepted
H3	Environmental Sustainability → Fintech Acceptance	0.132	3.02	0.002	Accepted
H4	Technological Sustainability → Fintech Acceptance	0.319	7.22	0.000	Accepted
H5	Governance Sustainability → Fintech Acceptance	0.198	4.74	0.000	Accepted
H6	Sustainability Dimensions → Perceived Usefulness	0.401	8.56	0.000	Accepted
H7	Perceived Usefulness → Fintech Acceptance	0.356	7.83	0.000	Accepted
H8	Trust → Fintech Acceptance	0.279	6.12	0.000	Accepted
H9	Financial Inclusion → Fintech Acceptance	0.241	5.39	0.000	Accepted

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4.3.2 Coefficient of Determination (R²)

The structural model explains 72.4 per cent of Fintech acceptance (R2=0.724), and so it demonstrates a significant explanatory power. The mediating constructs had the coefficients of 0.61, 0.58 and 0.65 of determination, which indicated moderate to strong predictive relevance.

4.4 Mediation Analysis

To address the indirect impact of the dimensions of Fintech sustainability on the Fintech acceptance mediated by the dimensions of perceived usefulness, trust, and financial inclusion, the mediation analysis was carried out through a bootstrapping process, consisting of 5000 resamples.

Table 4.4 Mediating Effect Results

Indirect Path	β	t-value	p-value	Mediation Type
Sustainability → Perceived Usefulness → Fintech Acceptance	0.143	5.01	0.000	Partial Mediation
Sustainability → Trust → Fintech Acceptance	0.118	4.32	0.000	Partial Mediation
Sustainability → Financial Inclusion → Fintech Acceptance	0.136	4.87	0.000	Partial Mediation

The findings in Table 4.4 prove that the perceived usefulness, trust, and financial inclusion show a great mediating effect in relation to the association between the dimensions of sustainability and Fintech acceptance and, in that way, sustainability supplements acceptance not only directly but indirectly by boosting user trust, perceived value, and inclusion.

Figure 4.2 Structural Equation Model of Fintech **Sustainability and** Fintech **Acceptance**
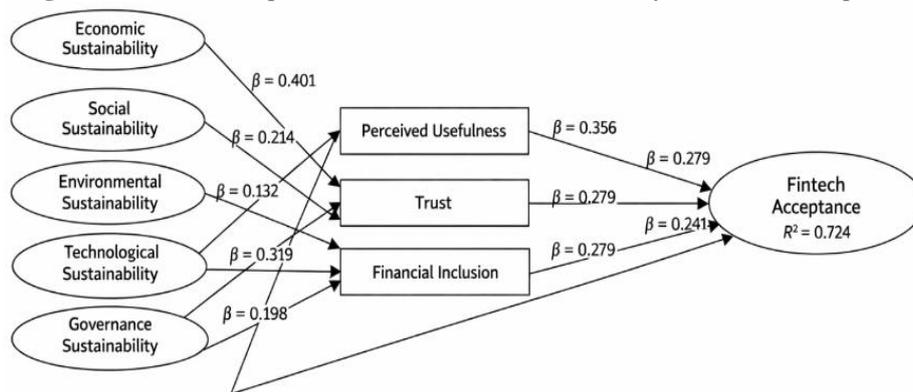
The Structural Equation Model (SEM) proves that all five dimensions of sustainability, such as economic, social, environmental, technological, and governance sustainability, have a significant impact (both directly and indirectly) on the acceptance of Fintech via the dimensions of perceived usefulness, trust, and financial inclusion. Technological sustainability ($\beta = 0.319$) and economic sustainability ($\beta = 0.401$) are the most influential dimensions of sustainability on the mediating constructs, which reveals the importance of the reliability of systems, security, and cost-efficiency in developing favourable user perceptions. A significant impact is also shown by social sustainability ($\beta = 0.214$) and governance sustainability ($\beta = 0.198$), which supports the sustainability of inclusive practices and clear regulatory processes in the creation of trust and accessibility. Even though it is comparatively less powerful, environmental sustainability ($\beta = 0.132$) also brings its meaning by promoting the perceived usefulness of Fintech services among users. The moderating variables, such as perceived usefulness ($\beta= -0.356$), trust ($\beta = -0.279$), and financial inclusion ($\beta = -0.241$), affect Fintech acceptance in a positive, yet significant way, which validates their critical role in converting sustainability initiatives to real user acceptance. To date, the model accounts for 72.4 per cent of the variance in Fintech acceptance ($R^2 = 0.724$), thus being a strong predictor of digital finance adoption in the long-term (Sustainability-oriented Fintech development).

4.5 Discussion of Findings

The results of this research can serve as solid empirical proof that the development of Fintech based on its sustainability plays a vital part in shaping the acceptance of Fintech in emerging-economy settings. Technological and economic sustainability were the largest predictors of Fintech acceptance globally, which is significant as it demonstrates the impact of dependable digital infrastructure, cybersecurity, and low transaction fees. Social sustainability was one of the dimensions that contributed greatly to the FinTech Acceptance, and it promotes financial inclusion, and hence it can be proved that inclusive financial technological platforms create fewer barriers to accessibility and inclusive financial access. The indirect impact of governance sustainability was strong, with the focus on regulatory compliance, transparency, and data protection as the building of long-term user confidence. Albeit with a relatively weak direct impact, environmental sustainability was found to have a strong indirect impact on usefulness perceived, implying that the environmentally conscious digital services contribute to the image of a platform and perceived efficiency. The findings complement the current technology-acceptance models by introducing sustainability constructs of Fintech-acceptance studies, thus providing a holistic model to comprehend the sustainability digital-finance adoption.

4.6 Summary of Results

This paper has empirically analysed the relationship between the Fintech sustainability dimensions and the Fintech acceptance through Structural Equation Modeling (SEM). The measurement model had high consistency, convergent validity and discriminant validity, thus validating the reliability of all the constructs. The structural model demonstrates that the five sustainability dimensions, including environmental, economic, technological, social, and governance sustainability, have an important positive impact on the acceptance of Fintech. Out of them, technological and economic sustainability turned out to be the most significant predictors, since system reliability, cybersecurity, and cost effectiveness have a significant impact on the acceptability of Fintech services by its users. The mediation analysis proved that sustainability dimensions have a significant relationship with Fintech acceptance through perceived usefulness, trust, and financial inclusion. It means that sustainability-based Fintech platforms increase user acceptance, not only directly but indirectly, through the improved perceived value, institutional trust, and inclusive access to financial services. The model showed high explanatory power, whereby 72.4 per cent of the variance in Fintech acceptance was shown to be explained by the suggested constructs, thus highlighting the strength of the mixed sustainable Fintech-acceptance system. On the whole, the results confirm the applicability of sustainability as an important predictor of the acceptance and uptake of Fintech in emerging economies in the long term.

5. Conclusion, Implications, and Future Scope

The study summarises the key empirical results of the study and points out the hypothetical, managerial, and regulatory-level implications that are based on the confirmed Structural Equation Modeling (SEM) findings. It also offers full-scale conclusions about how the Fintech sustainability dimensions determine Fintech acceptance in an emerging-economy background. The study also explains how the incorporation of sustainability in the Fintech ecosystem can enhance trust and foster financial inclusion and adoption of digital finance in the long run. Lastly, it includes the limitations in the study and proposes future research paths to develop sustainable Fintech scholarship and practice.

5.1 Conclusion

In this study, the authors conducted empirical research on how the elements of Fintech sustainability may affect Fintech acceptance in an emerging economy through a Structural Equation Modeling (SEM) approach. The findings affirm that there are economic, social, environmental, technological, and governance sustainability attributes that have a meaningful and favourable impact on Fintech acceptance, and technological and economic sustainability seem to be the most significant ones. The mediating role of perceived usefulness, trust, and financial inclusion also indicates that sustainability not only positively but indirectly increases Fintech acceptance by increasing perceived value, institutional confidence, and inclusive financial access. The validated model indicates that a substantive percentage of the variation in the Fintech acceptance can be explained by it, and hence the vital role of sustainability as a pillar to the long-term success of digital financial ecosystems.

5.2 Managerial and Policy Implications

The results have enormous implications for policymakers, regulators and Fintech practitioners. It is recommended that regulatory bodies should include the sustainability standards in Fintech regulation models by strengthening the policies of cybersecurity, advancing green Fintech programs, and enhancing consumer data protection tools. Fintech companies are advised to invest in scalable and secure technology infrastructure, make sure that they provide inexpensive services, incorporate ideas of ESG and encourage digital financial literacy to develop trust and inclusiveness. Sustainable Fintech solutions can help banks and NBFCs grow deep and wide, offering inclusive financial services, operational inefficiencies, and paperless, environmentally friendly banking activities, which will mitigate financial stability and sustainable development goals.

5.3 Theoretical Contributions

The contribution that this study is making to the literature in the fields of Fintech and sustainability lies in extending the traditional technology acceptance models like TAM and UTAUT by incorporating the concept of multidimensional sustainability measures. The research, by employing an empirical validation of a holistic sustainable Fintech acceptance framework, will present a new theoretical approach that will connect the concept of sustainability, trust, perceived usefulness, and financial inclusion with a Fintech adoption behaviour. This combined theoretical framework offers a powerful analytical nature into future studies examining the concept of enduring digital finance, especially in the fintech platform of an emerging economy.

5.4 Limitations and Future Scope

Irrespective of the contributions, the study has some constraints, such as the cross-sectional design, self-reporting, and geographical concentration on Karnataka, which can limit generalizability. Longitudinal designs can be used in future studies to elucidate dynamic shifts in sustainability perceptions, apply the model to other regions and countries and embrace new areas of Fintech like blockchain-based finance, green Fintech, and AI-based financial services. Combining objective ESG signals and transaction information would be an additional step towards the empirical strength and further insight into the sustainable adoption of Fintech.

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