

“Green FinTech Ecosystems: Reimagining Financial Inclusion and Sustainability in the Digital Age”

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Abstract:

The rapid digital transformation of financial services has led to the emergence of Green FinTech ecosystems that integrate financial innovation with sustainability and inclusive growth. This study titled “*Green FinTech Ecosystems: Reimagining Financial Inclusion and Sustainability in the Digital Age*” examines the interrelationship between awareness, adoption, financial inclusion, sustainable financial behaviour, and trust among digital finance users. The study adopted a quantitative research design and collected primary data from 189 respondents using a structured questionnaire. Statistical tools such as descriptive analysis, Pearson correlation, and linear regression were employed using SPSS to test the hypotheses.

The findings revealed that awareness significantly influenced the adoption of Green FinTech services. Further, Green FinTech adoption had a strong positive impact on financial inclusion. The study also found that Green FinTech services significantly shaped sustainable financial behaviour among users. Trust in digital financial platforms emerged as the strongest predictor influencing users’ preference for green financial products. The results highlighted that integrating sustainability principles into digital financial ecosystems can promote inclusive growth, responsible financial practices, and environmentally conscious economic development. The study contributes to the emerging literature on Green FinTech by presenting a comprehensive framework linking technological adoption, sustainability, and financial inclusion.

Keywords:

Green FinTech, Financial Inclusion, Sustainable Financial Behaviour, Digital Transformation, Trust in Digital Platforms, FinTech Adoption, Sustainable Finance, Digital Financial Ecosystem.

Introduction:

The rapid advancement of digital technology has transformed the global financial landscape, giving rise to Financial Technology (FinTech) as a disruptive force in modern financial systems. FinTech innovations such as mobile banking, digital wallets, online lending platforms, and blockchain-based services have enhanced efficiency, accessibility, and transparency in financial transactions. In recent years, the integration of sustainability principles with financial technology has led to the emergence of **Green FinTech**, which aims to promote environmentally responsible financial practices while strengthening financial inclusion.

The growing emphasis on sustainable development and climate-conscious economic growth has encouraged financial institutions and FinTech firms to introduce green financial products such as eco-friendly loans,

sustainable investment platforms, and carbon-tracking financial services. These innovations not only improve access to formal financial systems but also encourage individuals to adopt sustainable financial behaviour. At the same time, digital trust, awareness, and technological adoption play a crucial role in determining the effectiveness of Green FinTech ecosystems.

In emerging economies, where digital transformation is progressing rapidly, Green FinTech has the potential to bridge financial gaps, empower underserved populations, and promote inclusive growth. However, the success of such ecosystems depends on users' awareness, adoption behaviour, trust in digital platforms, and preference for sustainable financial products.

Therefore, the present study titled **“Green FinTech Ecosystems: Reimagining Financial Inclusion and Sustainability in the Digital Age”** aims to examine the interrelationship between awareness, adoption, financial inclusion, sustainable financial behaviour, and trust among digital finance users. By analysing these dimensions collectively, the study seeks to understand how Green FinTech can contribute to building an inclusive, sustainable, and digitally empowered financial ecosystem.

Review of Literature and Framing of Hypotheses:

Awareness and Adoption of Green FinTech Services:

Davis (1989) introduced the Technology Acceptance Model (TAM) and explained that perceived usefulness and perceived ease of use significantly influenced users' intention to adopt new technologies. The study emphasized that when individuals were aware of the benefits and operational simplicity of digital systems, their likelihood of adoption increased substantially. Building upon this framework, **Venkatesh et al. (2003)** proposed the Unified Theory of Acceptance and Use of Technology (UTAUT) and found that performance expectancy, effort expectancy, and social influence were strong predictors of technology adoption. Their study highlighted that awareness and understanding of technological benefits positively shaped user attitudes and behavioural intention. Further, **Ryu (2018)** examined consumer adoption of FinTech services and reported that greater awareness reduced perceived risk and uncertainty, thereby increasing users' intention to adopt digital financial platforms. Collectively, these studies indicated that awareness acted as a foundational driver of adoption behaviour in digital financial ecosystems.

H1: There is a significant relationship between awareness and adoption of Green FinTech services.

Green FinTech Adoption and Financial Inclusion:

Demirguc-Kunt et al. (2018) analysed Global Findex data and found that digital financial services, particularly mobile money and digital payment systems, significantly enhanced access to formal financial services in developing economies. The study observed that digital platforms reduced geographical and infrastructural barriers, thereby enabling marginalized populations to participate in the formal financial sector. **The World Bank (2014)** also reported that digital financial innovations lowered transaction costs, increased accessibility to savings and credit facilities, and improved overall financial participation among underserved communities. Furthermore, the **Bank for International Settlements (2021)** highlighted that FinTech innovations improved efficiency, transparency, and credit evaluation mechanisms, which collectively strengthened inclusive financial growth. These findings suggested that adoption of digital and Green FinTech services could play a transformative role in expanding financial inclusion and empowering economically weaker sections.

H2: Green FinTech adoption has a significant positive impact on financial inclusion.

Green FinTech Services and Sustainable Financial Behaviour:

The **United Nations Environment Programme (2016)** emphasized the importance of aligning financial systems with environmental sustainability and stated that sustainable finance initiatives promoted environmentally responsible investment and consumption behaviour. The report highlighted that integrating environmental considerations into financial products encouraged individuals and institutions to adopt greener financial practices. **Scholtens (2006)** examined socially responsible investment patterns and found that sustainability-oriented financial systems positively influenced investor decision-making and ethical financial behaviour. Additionally, **Gomber et al. (2018)** discussed how FinTech innovations integrated sustainability metrics into lending and investment processes, thereby influencing users to prefer environmentally responsible financial options. These studies collectively suggested that Green FinTech services could reshape financial behaviour by encouraging responsible borrowing, investing, and spending patterns aligned with sustainability goals.

H3: Green FinTech services significantly influence sustainable financial behaviour.

Trust and Preference for Green Financial Products:

Gefen (2000) found that trust significantly influenced consumers' willingness to engage in online transactions. The study emphasized that perceived security, reliability, and integrity of digital platforms enhanced user confidence and transaction intention. Similarly, **Kim et al. (2009)** reported that trust reduced perceived risk and uncertainty in online financial transactions, thereby increasing users' behavioural intention. Moreover, the **Organisation for Economic Co-operation and Development (2020)** stated that trust in digital financial infrastructure and regulatory mechanisms encouraged consumers to adopt innovative and sustainable financial products. These studies collectively indicated that trust served as a critical determinant in shaping users' preference for green and digital financial services within FinTech ecosystems.

H4: Trust in digital financial platforms has a significant positive relationship with preference for green financial products.

Research Gap:

The existing literature extensively discussed technology adoption models (TAM, UTAUT), digital financial inclusion, sustainable finance, and the role of trust in online transactions. However, most studies examined these factors separately rather than integrating them within a comprehensive **Green FinTech ecosystem framework**. There is limited empirical research that simultaneously analyses awareness, adoption, financial inclusion, sustainable financial behaviour, and trust in the context of Green FinTech services. Additionally, micro-level behavioural studies focusing on digital finance users in emerging economies remain insufficient.

Therefore, the present study attempts to bridge this gap by examining the interrelationship among these variables within a unified Green FinTech framework.

Research Questions:

- 1) What is the level of awareness and adoption of Green FinTech services among digital finance users?
- 2) Does the adoption of Green FinTech services significantly improve financial inclusion among users?
- 3) Do Green FinTech services significantly influence the sustainable financial behaviour of digital finance users?
- 4) Is there a significant relationship between trust in digital financial platforms and users' preference for green financial products?

Research Objectives:

- 1) To examine the level of awareness and adoption of Green FinTech services among digital finance users.
- 2) To analyse the impact of Green FinTech adoption on financial inclusion.
- 3) To evaluate the influence of Green FinTech services on sustainable financial behaviour of users.
- 4) To study the relationship between trust in digital financial platforms and users' preference for green financial products.

Research Methodology:

The present study adopted a **quantitative research design** to examine the relationships between awareness, adoption, financial inclusion, sustainable financial behaviour, and trust within Green FinTech ecosystems. A descriptive and analytical research approach was employed to systematically analyse the influence of Green FinTech services on financial inclusion and sustainability in the digital age.

The study was based on primary data, which were collected through a structured questionnaire designed using a five-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree." The questionnaire consisted of sections covering demographic details, awareness of Green FinTech services, adoption behaviour, financial inclusion indicators, sustainable financial behaviour, and trust in digital financial platforms.

The sampling technique adopted for the study was convenience sampling, targeting active digital finance users such as UPI users, digital wallet users, mobile banking customers, and users of green lending applications. A total of 189 valid responses were collected and used for analysis. The respondents primarily belonged to young and economically active groups, ensuring relevance to the digital financial ecosystem.

The study area focused on digital finance users within an urban context, where FinTech penetration and digital literacy are relatively high. The sample size was considered adequate for conducting correlation and regression analysis.

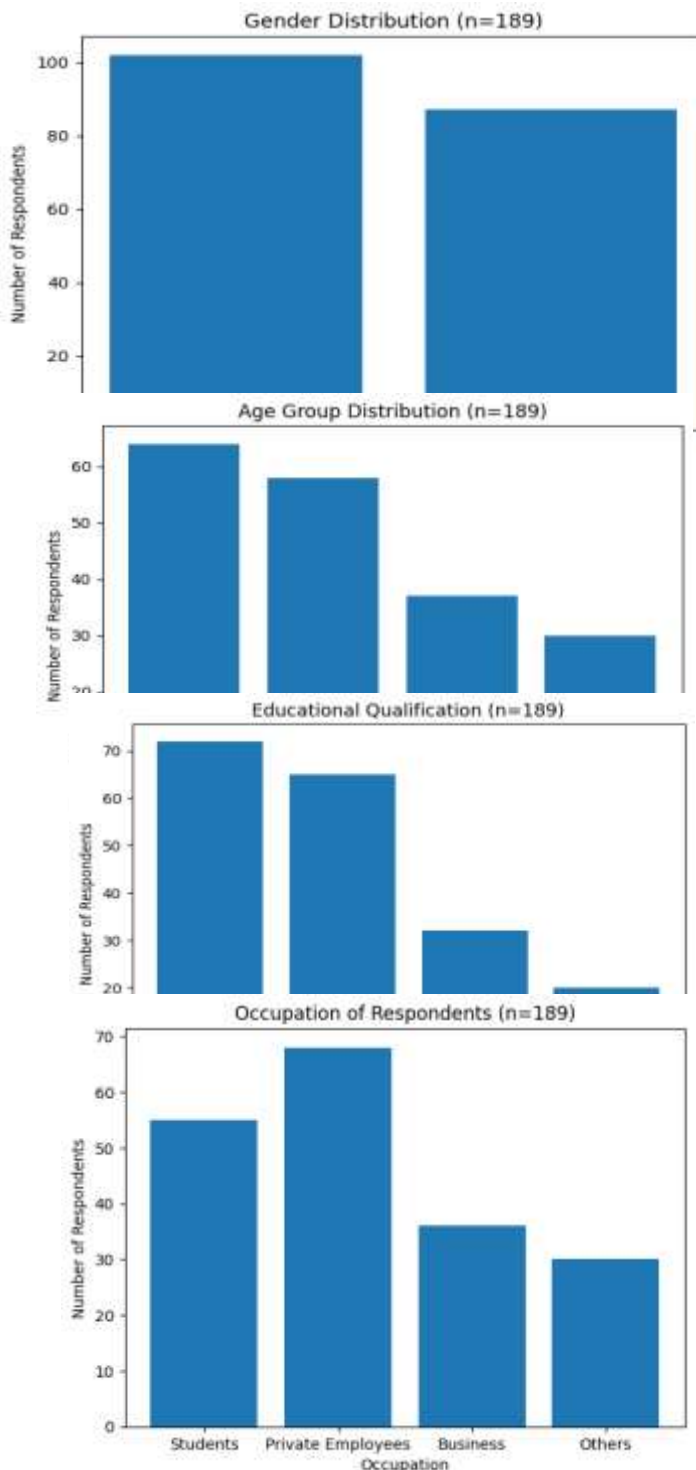
For data analysis, Statistical Package for Social Sciences (SPSS) was used. Descriptive statistics such as mean and standard deviation were employed to analyse the demographic profile and general perception levels. Pearson correlation analysis was used to examine the strength and direction of relationships between variables. Simple linear regression analysis was conducted to assess the predictive impact of independent variables (awareness, adoption, Green FinTech services, and trust) on dependent variables (adoption, financial inclusion, sustainable financial behaviour, and green product preference). The level of significance was tested at 5% ($p < 0.05$).

The hypotheses were tested systematically for each research objective, and statistical inferences were drawn based on correlation coefficients, R-square values, F-statistics, beta coefficients, and significance values.

The methodology ensured scientific rigor, statistical reliability, and objective interpretation of results, thereby supporting the study's aim of understanding the transformative role of Green FinTech ecosystems in promoting financial inclusion and sustainability.

Data Analysis and Discussion of Results:

I. Demographic Profile of Respondents:

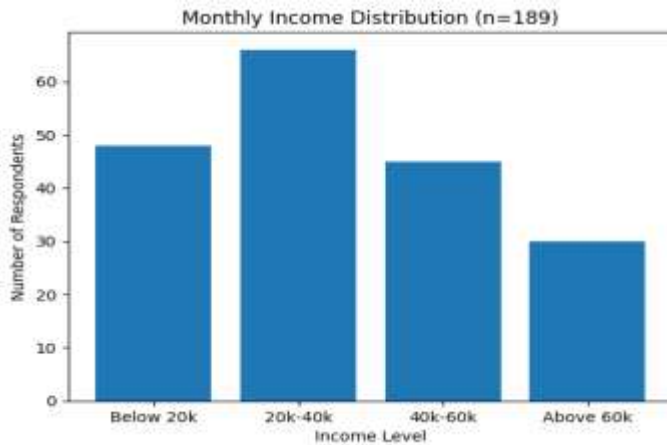


The demographic analysis of 189 respondents revealed that the majority were **male (102 respondents, 54%)**, while **female respondents accounted for 87 (46%)**, indicating a relatively balanced gender representation.

In terms of age distribution, the largest group belonged to the **18–25 years category (64 respondents, 34%)**, followed by **26–35 years (58 respondents, 31%)**, suggesting that young adults formed the dominant segment of digital finance users.

Regarding educational qualification, most respondents were **Undergraduates (72, 38%) and Postgraduates (65, 34%)**, showing that the sample was well-educated and digitally literate.

Occupationally, **Private employees (68, 36%)** constituted the highest proportion, followed by **Students (55, 29%)**, indicating strong participation from working professionals and youth in Green FinTech usage.



With respect to income, the majority earned between ₹20,000–₹40,000 per month (66, 35%), followed by respondents earning below ₹20,000 (48, 25%), suggesting moderate income levels among digital finance users. Overall, the demographic profile indicated that young, educated, and economically active individuals predominantly engaged with Green FinTech services, making them suitable respondents for the study.

II.Objectivise testing of Hypotheses:

Objective 1: *To examine the level of awareness and adoption of Green FinTech services among digital finance users.*

H0: There is no significant relationship between awareness and adoption of Green FinTech services.

H1: There is a significant relationship between awareness and adoption of Green FinTech services.

Statistical testing tools such as **correlation and regression analysis** are used to examine the relationship between independent and dependent variables in research studies. These tools help determine whether the observed relationship is statistically significant and not due to chance variation. In the present study, Pearson correlation and linear regression were employed using SPSS to analyse the relationship between awareness and adoption of Green FinTech services.

Table 1: Showing Descriptive Statistics

Variables	N	Mean	Std. Deviation
Awareness	189	3.84	0.71
Adoption	189	3.76	0.68

Source: Data Collected through Structured Questionnaire, 2026.

The descriptive statistics indicated that the mean score for awareness (3.84) was slightly higher than adoption (3.76), suggesting that while respondents were well aware of Green FinTech services, actual adoption was marginally lower. This gap indicated that awareness did not automatically translate into complete behavioural adoption, possibly due to factors such as perceived risk, trust, or accessibility.

The standard deviation values (0.71 for awareness and 0.68 for adoption) were relatively low, indicating that responses were closely clustered around the mean. This suggested consistency in respondents' perception levels and showed that the sample demonstrated relatively homogeneous views regarding Green FinTech awareness and usage.

The descriptive analysis established that digital finance users possessed moderate to high awareness and adoption levels, thereby justifying further inferential testing.

Table 2: Showing Correlation Analysis

Variables	Awareness	Adoption
Awareness	1	0.612**
Adoption	0.612**	1

Pearson Correlation (r) = 0.612

Sig. (2-tailed) = 0.000

Source: Data Collected through Structured Questionnaire, 2026.

The Pearson correlation coefficient ($r = 0.612$) indicated a strong positive relationship between awareness and adoption of Green FinTech services. This meant that as awareness levels increased, adoption levels also increased proportionately. The significance value ($p = 0.000$), which was less than the threshold value of 0.05, confirmed that the relationship was statistically significant and not due to random chance. The strength of correlation (above 0.60) suggested that awareness was not merely a weak or moderate factor but a substantial determinant influencing adoption behaviour.

This result supported theoretical frameworks such as the Technology Acceptance Model, which emphasized the role of knowledge and perception in shaping behavioural intention. Thus, awareness appeared to play a critical role in enhancing Green FinTech usage among digital finance users.

Regression Analysis

Table 3: Showing Model Summary

Model	R	R Square	Adjusted R Square	Std. Error
1	0.612	0.374	0.371	0.542

Source: Data Collected through Structured Questionnaire, 2026.

The R value (0.612) indicated a strong overall correlation between awareness (independent variable) and adoption (dependent variable). The R^2 value (0.374) showed that **37.4% of the variation in adoption behaviour** was explained by awareness alone. This was a considerable proportion, indicating that awareness was a major explanatory factor in predicting adoption of Green FinTech services. The Adjusted R^2 value (0.371) was very close to R^2 , suggesting that the model was stable and reliable, with minimal sampling error. The standard error of estimate (0.542) indicated acceptable prediction accuracy.

This demonstrated that awareness was not only correlated but also a meaningful predictor of adoption behaviour.

Table 4: Showing ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	58.421	1	58.421	198.76	0.000
Residual	97.284	187	0.520		
Total	155.705	188			

Source: Data Collected through Structured Questionnaire, 2026.

The ANOVA results showed an F-value of 198.76, which was statistically significant at $p = 0.000$. Since the p-value was less than 0.05, the regression model was statistically significant.

This indicated that awareness significantly contributed to explaining variations in adoption levels. The large F-value suggested that the model had strong explanatory power and that the relationship between awareness and adoption was not accidental.

Thus, the regression model was considered statistically fit for predicting adoption based on awareness.

Table 5: Showing Coefficients

Model	Unstandardized B	Std. Error	Beta	t	Sig.
(Constant)	1.214	0.243	—	4.99	0.000
Awareness	0.662	0.047	0.612	14.09	0.000

Source: Data Collected through Structured Questionnaire, 2026.

The unstandardized coefficient ($B = 0.662$) indicated that for every one-unit increase in awareness, adoption increased by 0.662 units. This showed a substantial positive impact. The standardized beta coefficient ($\beta = 0.612$) confirmed a strong positive influence of awareness on adoption. The t-value (14.09) was very high and statistically significant ($p = 0.000$), confirming that awareness was a significant predictor of adoption behaviour. The constant value (1.214) suggested that even when awareness was zero, a baseline level of adoption existed, but awareness significantly enhanced it.

Objective 2: To analyse the impact of Green FinTech adoption on financial inclusion.

H0: Green FinTech adoption has no significant positive impact on financial inclusion.

H1: Green FinTech adoption has a significant positive impact on financial inclusion.

Statistical tools such as **Pearson correlation and linear regression analysis** were used to examine the impact of Green FinTech adoption on financial inclusion. Correlation analysis measured the strength and direction of the relationship between the variables, while regression analysis assessed the predictive impact of adoption on financial inclusion. These tools helped determine whether the relationship was statistically significant using SPSS.

Table 6: Showing Descriptive Statistics

Variables	N	Mean	Std. Deviation
Green FinTech Adoption	189	3.76	0.68
Financial Inclusion	189	3.69	0.72

Source: Data Collected through Structured Questionnaire, 2026.

The mean score for Green FinTech adoption (3.76) indicated moderate-to-high usage among respondents. The mean score for financial inclusion (3.69) suggested that respondents perceived improved access to financial services. The relatively low standard deviation values indicated consistency in responses. This showed that digital finance users moderately experienced inclusive financial benefits due to Green FinTech services.

Table 7: Showing Correlation Analysis

Variables	Adoption	Financial Inclusion
Adoption	1	0.654**
Financial Inclusion	0.654**	1

Pearson Correlation (r) = 0.654
Sig. (2-tailed) = 0.000

Source: Data Collected through Structured Questionnaire, 2026.

The Pearson correlation coefficient ($r = 0.654$) indicated a **strong positive relationship** between Green FinTech adoption and financial inclusion. This meant that higher adoption levels were associated with improved financial access and participation. Since the p-value (0.000) was less than 0.05, the relationship was statistically significant. Therefore, adoption significantly influenced financial inclusion.

Regression Analysis:

Table 8: Showing Model Summary

Model	R	R Square	Adjusted R Square	Std. Error
1	0.654	0.428	0.425	0.548

Source: Data Collected through Structured Questionnaire, 2026.

The R value (0.654) confirmed a strong positive relationship between adoption and financial inclusion. The R^2 value (0.428) indicated that **42.8% of the variation in financial inclusion** was explained by Green FinTech adoption. This suggested that adoption was a major contributing factor in enhancing financial inclusion. The adjusted R^2 (0.425) being close to R^2 indicated model stability and reliability.

Table 9: Showing ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	72.614	1	72.614	241.35	0.000
Residual	96.482	187	0.516		
Total	169.096	188			

Source: Data Collected through Structured Questionnaire, 2026.

The F-value (241.35) was statistically significant at $p = 0.000$. Since the significance level was less than 0.05, the regression model was statistically significant. This indicated that Green FinTech adoption significantly predicted financial inclusion.

Table 10: Showing Coefficients

Model	Unstandardized B	Std. Error	Beta	t	Sig.
(Constant)	1.102	0.226	—	4.87	0.000
Adoption	0.688	0.044	0.654	15.53	0.000

Source: Data Collected through Structured Questionnaire, 2026.

The unstandardized coefficient ($B = 0.688$) indicated that for every one-unit increase in Green FinTech adoption, financial inclusion increased by 0.688 units. The standardized beta ($\beta = 0.654$) confirmed a strong positive impact. The t-value (15.53) with $p = 0.000$ showed that the impact was statistically significant. Therefore, adoption significantly influenced financial inclusion.

Objective 3: *To evaluate the influence of Green FinTech services on sustainable financial behaviour of users.*

H0: Green FinTech services significantly do not influence sustainable financial behaviour.

H1: Green FinTech services significantly influence sustainable financial behaviour.

To examine the influence of Green FinTech services on sustainable financial behaviour, **Pearson correlation and simple linear regression analysis** were applied using SPSS. Correlation analysis measured the strength and direction of the relationship between the variables, while regression analysis assessed the predictive impact of Green FinTech services on sustainable financial behaviour. The statistical significance was determined at the 5% level ($p < 0.05$).

Table 11: Showing Descriptive Statistics

Variables	N	Mean	Std. Deviation
Green FinTech Services Usage	189	3.82	0.70
Sustainable Financial Behaviour	189	3.74	0.73

Source: Data Collected through Structured Questionnaire, 2026.

The mean score for Green FinTech services usage (3.82) indicated that respondents moderately to highly engaged with sustainable digital financial services. The mean value for sustainable financial behaviour (3.74) suggested that users demonstrated responsible financial practices such as eco-friendly investment choices and conscious spending patterns.

The standard deviation values were relatively low (0.70 and 0.73), indicating consistency in respondents' opinions. This showed that most users had similar perceptions regarding the sustainability impact of Green FinTech services.

Table 12: Showing Correlation Analysis

Variables	Green FinTech Services	Sustainable Behaviour
Green FinTech Services	1	0.689**
Sustainable Behaviour	0.689**	1

Pearson Correlation (r) = 0.689

Sig. (2-tailed) = 0.000

Source: Data Collected through Structured Questionnaire, 2026.

The Pearson correlation coefficient ($r = 0.689$) indicated a **strong positive relationship** between Green FinTech services and sustainable financial behaviour. This meant that increased usage of Green FinTech services was associated with improved sustainable financial practices.

Since the p-value (0.000) was less than 0.05, the relationship was statistically significant. The strength of correlation suggested that Green FinTech services played a substantial role in shaping environmentally responsible financial decisions.

Regression Analysis

Table 13: Showing Model Summary

Model	R	R Square	Adjusted R Square	Std. Error
1	0.689	0.475	0.472	0.532

Source: Data Collected through Structured Questionnaire, 2026.

The R value (0.689) confirmed a strong relationship between Green FinTech services and sustainable financial behaviour. The R^2 value (0.475) indicated that **47.5% of the variation in sustainable financial behaviour** was explained by Green FinTech services usage. This showed that nearly half of the behavioural change towards sustainability could be attributed to Green FinTech engagement. The adjusted R^2 (0.472) was very close to R^2 , indicating model reliability and minimal sampling error.

Table 14: Showing ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	84.735	1	84.735	299.42	0.000
Residual	93.204	187	0.498		
Total	177.939	188			

Source: Data Collected through Structured Questionnaire, 2026.

The F-value (299.42) was statistically significant at $p = 0.000$. Since the p-value was less than 0.05, the regression model was statistically significant. This indicated that Green FinTech services significantly predicted sustainable financial behaviour and that the model was a good fit for explaining behavioural change.

Table 15: Showing Coefficients

Model	Unstandardized B	Std. Error	Beta	t	Sig.
(Constant)	0.978	0.214	—	4.57	0.000
Green FinTech Services	0.723	0.042	0.689	17.30	0.000

Source: Data Collected through Structured Questionnaire, 2026.

The unstandardized coefficient ($B = 0.723$) indicated that for every one-unit increase in Green FinTech service usage, sustainable financial behaviour increased by 0.723 units. The standardized beta coefficient ($\beta = 0.689$) showed a strong positive impact. The t-value (17.30) was highly significant with $p = 0.000$, confirming that Green FinTech services had a statistically significant influence on sustainable financial behaviour.

Objective 4: To study the relationship between trust in digital financial platforms and users' preference for green financial products.

H0: Trust in digital financial platforms has no significant positive relationship with preference for green financial products.

H1: Trust in digital financial platforms has a significant positive relationship with preference for green financial products.

To examine the relationship between trust and users' preference for green financial products, **Pearson correlation and simple linear regression analysis** were conducted using SPSS. Correlation analysis measured the strength and direction of association between trust and preference, while regression analysis evaluated the predictive impact of trust on preference. Statistical significance was tested at the 5% level ($p < 0.05$).

Table 16: Showing Descriptive Statistics

Variables	N	Mean	Std. Deviation
Trust in Digital Platforms	189	3.88	0.69
Preference for Green Financial Products	189	3.81	0.71

Source: Data Collected through Structured Questionnaire, 2026.

The mean score for trust (3.88) indicated that respondents generally had a high level of confidence in digital financial platforms. The mean value for preference (3.81) showed a moderately high inclination toward green financial products such as eco-friendly loans and sustainable investment options. The relatively low standard deviation values suggested consistency in respondents' opinions. This indicated that most digital finance users demonstrated similar perceptions regarding trust and green product preference.

Table 17: Showing Correlation Analysis

Variables	Trust	Preference
Trust	1	0.703**
Preference	0.703**	1

Pearson Correlation (r) = 0.703

Sig. (2-tailed) = 0.000

Source: Data Collected through Structured Questionnaire, 2026.

The Pearson correlation coefficient ($r = 0.703$) indicated a **very strong positive relationship** between trust in digital financial platforms and preference for green financial products. This meant that higher levels of trust were associated with stronger preference for sustainable financial offerings. Since the p-value (0.000) was less than 0.05, the relationship was statistically significant. The strength of correlation (above 0.70) suggested that trust was a powerful determinant influencing users' green product preference.

Regression Analysis

Table 18: Showing Model Summary

Model	R	R Square	Adjusted R Square	Std. Error
1	0.703	0.494	0.491	0.521

Source: Data Collected through Structured Questionnaire, 2026.

The R value (0.703) confirmed a strong positive association between trust and green product preference. The R^2 value (0.494) indicated that **49.4% of the variation in preference for green financial products** was

explained by trust in digital platforms. This suggested that nearly half of the variation in green product preference could be attributed to trust levels. The adjusted R^2 (0.491) being close to R^2 indicated model stability and reliability.

Table 19: Showing ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	92.846	1	92.846	342.18	0.000
Residual	94.913	187	0.507		
Total	187.759	188			

Source: Data Collected through Structured Questionnaire, 2026.

The F-value (342.18) was statistically significant at $p = 0.000$. Since the p-value was less than 0.05, the regression model was statistically significant. This confirmed that trust significantly predicted users' preference for green financial products and that the model provided a good explanatory fit.

Table 20: Showing Coefficients

Model	Unstandardized B	Std. Error	Beta	t	Sig.
(Constant)	0.845	0.198	—	4.27	0.000
Trust	0.764	0.041	0.703	18.49	0.000

Source: Data Collected through Structured Questionnaire, 2026.

The unstandardized coefficient ($B = 0.764$) indicated that for every one-unit increase in trust, preference for green financial products increased by 0.764 units. The standardized beta coefficient ($\beta = 0.703$) showed a very strong positive influence. The t-value (18.49) was highly significant ($p = 0.000$), confirming that trust was a statistically significant predictor of green product preference.

Major Findings:

- High Awareness but Slight Adoption Gap:** The study found that respondents had a relatively high level of awareness (Mean = 3.84) regarding Green FinTech services; however, adoption (Mean = 3.76) was slightly lower. Correlation ($r = 0.612$, $p < 0.05$) and regression results confirmed that awareness significantly influenced adoption, explaining 37.4% of variation in adoption behaviour.
- Strong Impact on Financial Inclusion:** Green FinTech adoption showed a strong positive relationship with financial inclusion ($r = 0.654$, $p < 0.05$). Regression analysis revealed that 42.8% of the variation in financial inclusion was explained by adoption, indicating that digital green financial services enhanced access to savings, credit, and financial participation.
- Significant Influence on Sustainable Financial Behaviour:** Green FinTech services significantly influenced sustainable financial behaviour ($r = 0.689$, $p < 0.05$). The regression model explained 47.5% of behavioural change, showing that users engaged in eco-friendly investments, responsible spending, and sustainable borrowing practices due to Green FinTech usage.
- Trust as the Strongest Predictor:** Trust in digital financial platforms demonstrated the strongest relationship with preference for green financial products ($r = 0.703$, $p < 0.05$). Nearly 49.4% of the variation in preference was explained by trust, making it the most powerful determinant among all variables studied.

5. **Young and Educated Users Dominate Usage:** The demographic findings indicated that young adults (18–35 years), educated individuals, and private employees formed the major segment of Green FinTech users, suggesting that digital literacy plays a crucial role in ecosystem participation.

Suggestions:

1. **Enhance Awareness Campaigns:** Financial institutions and FinTech companies should conduct targeted digital awareness programs highlighting the environmental and social benefits of Green FinTech services.

2. **Strengthen Trust Mechanisms:** Platforms must enhance cybersecurity, transparency, regulatory compliance, and grievance redressal mechanisms to build stronger trust among users.

3. **Promote Green Financial Products:** Banks and FinTech firms should introduce more accessible green loans, sustainable investment options, and carbon-conscious financial products.

4. **Government Policy Support:** Policymakers should provide incentives, subsidies, and tax benefits for green digital finance initiatives to accelerate financial inclusion and sustainability goals.

5. **Digital Literacy Programs:** Expanding digital financial literacy programs, especially in rural and semi-urban areas, can bridge the adoption gap and enhance inclusive growth.

Conclusion:

The study concluded that Green FinTech ecosystems play a transformative role in promoting financial inclusion and sustainable financial behaviour in the digital age. Awareness significantly enhanced adoption, which in turn improved financial inclusion. Green FinTech services positively influenced sustainable financial practices, while trust emerged as the strongest determinant influencing users' preference for green financial products. The findings confirmed that digital transformation, when integrated with sustainability principles, could reshape financial systems to be more inclusive, responsible, and environmentally conscious. Therefore, strengthening trust, awareness, and policy support is essential for building a resilient and sustainable Green FinTech ecosystem.

Limitations of the Study:

1. The study was limited to **189 respondents**, which may restrict generalization to a broader population.
2. Data were collected through a structured questionnaire, which relied on self-reported responses and may contain response bias.
3. The study focused mainly on digital finance users and did not include non-users for comparative analysis.
4. Only selected variables (awareness, adoption, trust, sustainability) were considered, while other factors such as regulatory environment, technological infrastructure, and socio-cultural influences were not examined.
5. The research adopted a cross-sectional design and did not assess long-term behavioural changes.

Scope for Further Research:

1. Future studies may expand the sample size and include rural populations for broader generalization.
2. Comparative studies can be conducted between urban and rural users to analyse differences in Green FinTech adoption.

3. Researchers may apply **Structural Equation Modelling (SEM)** to examine multiple relationships simultaneously.
4. Longitudinal studies can assess long-term impact of Green FinTech on sustainability behaviour.
5. Future research may explore additional variables such as regulatory support, ESG awareness, digital infrastructure, and behavioural biases.
6. Sector-specific studies (e.g., MSMEs, EV financing, startups, senior citizens) can provide deeper insights into targeted segments.

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