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Digital Financial Inclusion Through Fintech

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Abstract.
This Study Explores The Influence Of Service Trust And Habit On Motivation, And Its Impact On The Use Of Digital Currency. We Used A Partial Least Square Structured Equation Modeling (PLS-SEM) Technique On A Survey Questionnaire Data. We Were Gratified To Find Strong Factor Loadings, Cronbach's Alpha, Composite Reliability And Average Variance Explained (AVE) Values From The Measurement Model Analysis, Indicating Both High Reliability And Validity Of The Constructs. The Fornell-Larcker Criterion And Heterotrait-Monotrait Ratio Of Correlations To Them Proved The Discriminant Validity. The Result Of Structural Model Analysis In The Study [($B = 0.595$, $P < 0.01$)] Demonstrated Service Trust Positively Impacting Digital Financial Inclusion With The Most Magnitude, Followed By Digital Currency Usage, Habit, And Motivation Which Failed To Demonstrate Significant Effects. The Model Explained 60.1% Of The Variance In Digital Financial Inclusion, And Service Trust Showed A Large Effect Size ($F^2 = 0.506$). These Findings Signal The Essentiality Of Nurturing Trust In The Realm Of Digital Finance In The Success Of Fintech Projects And Promoting Digital Financial Inclusion. The Findings Illustrate Its Significance And Underline The Need For Fintech Companies And Their Regulators To Develop And Maintain High Levels Of Trust Through Transparency, Security, And Reliability.

Keywords: Service Trust, Digital Currency Usage, Digital Financial Inclusion, Discriminant Validity, Composite Reliability, Average Variance Explained

Introduction

Financial Inclusion And The Role Of Financial Technology (Fintech) In Broadening Access To Financial Services Have Become Increasingly Relevant Issues In Recent Years. According To The World Bank, Financial Inclusion Is Defined As, "Individuals And Businesses Have Access To Useful And Affordable Financial Products And Services – That Meet Their Needs – Transactions, Payments, Savings, Credit And Insurance – Delivered In A Responsible And Sustainable Way." Fintech — Meaning Technology That Delivers Financial Services — Has Become A Key Tool For Enhancing Financial Inclusion In Developing Economies.

We Analyze How Fintech Innovations Such As Mobile Payments, Mobile Wallets, And Banking Digitization Are Influencing Financial Inclusion In India With A Special Focus On Government Collaborations And Indigent Urban Population Access. While A Great Deal Of Ground Has Been Covered To Increase Access To Financial Services In Recent Years, A Large Segment Of India's Population, Particularly In Rural And Low-Income Segments, Continues To Be Outside The Formal Financial System. Realizing How Fintech Addresses This Gap Is Crucial To Implement Efficient Policies And Strategies To Reach Equal Access To Financial Services.

They Use Both Quantitative Analysis Of Survey Data And Qualitative Insights From The Literature (Mixed-Methods). The Study, Specifically Examines Key Government Programs That Promote Financial Inclusion Using Digital Channels, Such As The Pradhan Mantri Jan Dhan Yojana (PMJDY) And Digital

India Programs. It Also Explores How Mobile Payment Platforms, Digital Lending, And Other Fintech Innovations Around The World Are Increasing Access To Financial Services For Underserved Sections Of Society

1.1 Problem Statement:

Access To Digital Financial Services Has Increased Significantly, But A Significant Part Of The World, Especially In Emerging Markets, Is Still Not Plugged Into A Formal Financial System. The Positive Effects Of Government Initiatives, Mobile Payments, And Banking Digitization Have All Been Advocated As Solutions To This Problem, But Comprehensive Research Into How Effective They Are, As Well As The Challenges Faced Along The Way, Is Scarce. How These Factors Interact And Shape Financial Inclusion Is Essential To Strengthening Policies And Practices Targeted At Reaching Equitable Access To Financial Services.

1.2 Significance Of The Study:

The Findings Of This Study Would Be Beneficial For Policymakers, Financial Institutions, And Fintech Institutions Focusing On Improving Financial Inclusion. This Study Contributes To Evidence-Based Recommendations For Future Initiatives In Developing Countries By Investigating The Efficacy Of Government Initiatives And The Role Of Digital Technologies (I.E., Mobile Payments And Banking Digitization). The Insights Will Also Help In Understanding How To Overcome Barriers To Access For Groups That Are Often Marginalized, Such As Women, People Living In Rural Areas, And Those In Low-Income Brackets. In Conclusion, This Study Seeks To Contribute To The Wider Effort To Reduce Financial Exclusion And Promote Sustainable Development Through Inclusive Digital Financial Services.

Literature Review

This Section Of The Study Involves A Review Of The Literature In Five Dimensions:

- Literature Review On Fintech And Financial Inclusion,
- Literature Review On Digital Financial Inclusion,
- Literature Review On Service Trust And Financial Inclusion,
- Literature Review On Habit And Financial Inclusion, And
- Literature Review On Motivation And Financial Inclusion.

1.3 Fintech And Financial Inclusion

Financial Technology (Fintech) Has Emerged As A Transformative Force In Advancing Financial Inclusion, Particularly In Developing Economies. Mobile Money Services, Such As Those In East Africa And China's Digitized Financial Systems, Have Significantly Improved Access To Financial Services And Reduced Poverty (Buckley Et Al., 2019). Similarly, India's "India Stack" Initiative Has Driven Financial Access, With 80% Of Adults Having An Account By 2017 (Arner Et Al., 2018). Innovations Such As Mobile Money, Crowdfunding Platforms, And Robo-Advising Have Lowered Costs, Expanded Financial Access, And Reduced Barriers For Underserved Populations (Beck, 2020; Philippon, 2019). In Rural India, Social Influence, User Habits, And Ease Of Use Have Been Key Drivers Of Fintech Adoption, Promoting Entrepreneurship And Bridging The Gaps Between Banked And Unbanked Populations (Goswami Et Al., 2022). However, These Advancements Also Pose Challenges Such As Blurring Regulatory Boundaries, Exacerbating Inequalities, And Raising Sustainability Concerns (Buckley Et Al., 2019; Philippon, 2019). Policymakers And Regulators Are Urged To Balance Innovation With Consumer Protection, Financial Stability, And Environmental Considerations, As Fintech Plays A Pivotal Role In Achieving UN Sustainable Development Goals, Including Poverty Reduction And Gender Equality (Buckley Et Al., 2019).

1.4 Digital Financial Inclusion

Digital Financial Inclusion, Defined As Providing Access To Financial Services Through Digital Channels, Such As Mobile Phones And The Internet, Has Become Critical In Promoting Sustainable Development And Economic Growth, Especially In Developing Countries (Dr. Tabitha Durai, 2019; Tay Et Al., 2022). It Enables Underserved Populations To Save, Invest, And Access Credit While Offering Benefits Such As Affordability, Convenience, And Improved Financial Decision Making (Dr. Tabitha Durai, 2019; Ozili, 2022). However, Challenges Persist, Including Gender, Wealth, And Geographic Disparities As Well As Cybersecurity And Regulatory Issues (Ozili, 2022; Tay Et Al., 2022). The COVID-19 Pandemic Has Accelerated The Adoption Of Digital Financial Services And Highlighted Gaps In Infrastructure And Access (Tay Et Al., 2022). To Address These Challenges, Recommendations Include Enhancing The Digital Infrastructure, Simplifying Banking Procedures, And Prioritizing Financial Education (Tay Et Al., 2022). Proper Implementation Can Significantly Contribute To Achieving The 2030 Sustainable Development Goals By Fostering Financial Inclusion, Reducing Poverty, And Empowering Underserved Populations (Dr. Tabitha Durai, 2019; Tay Et Al., 2022).

1.5 Service Trust And Financial Inclusion

Trust Is A Pivotal Factor In The Adoption And Use Of Digital Financial Services (DFS), Particularly Among Vulnerable Groups And Developing Countries. It Mediates The Relationship Between Mobile Money Adoption And Financial Inclusion For Micro, Small, And Medium Enterprises (Msmes), As Shown In Rural Uganda, Where Trust In Data Privacy And Mobile Networks Drives Participation In Mobile Money Platforms (Okello Candiya Bongomin & Ntayi, 2020). In India, Both Demand-Side Factors (E.G., Education And Identity Proof) And Supply Side Factors (E.G., Agent Incentives And Infrastructure) Impact DFS Adoption, With Trust Deficits Acting As A Significant Barrier (Yadav & Kalluru, 2024). In The Dutch Payment System, Individuals With Low Digital Skills Or Financial Challenges Exhibit Below-Average Trust Levels, Whereas Mobility-Impaired Users Show Higher Trust In The System (Broekhoff Et Al., 2024). Trust Also Underpins Innovation And Sustainable Development In The Digital Financial Sector, Encompassing Aspects Such As Digital Identity, Wealth Distribution, And Confidentiality, And Necessitates Scalable, Inclusive, And Data-Protected Financial Architecture (Peter Pashkov, 2020). Addressing Trust-Related Challenges Through Accessible Systems, Enhanced Data Protection, And Inclusive Policies Is Essential For Fostering Financial Inclusion And Accelerating DFS Adoption.

1.6 Habit And Financial Inclusion

Recent Research Highlights The Factors Influencing Fintech Adoption And Its Role In Promoting Financial Inclusion. Performance Expectancy And Facilitating Conditions Significantly Enhance Behavioral Intentions To Adopt Fintech, Which Positively Impacts Financial Inclusion (Odei-Appiah & Adjei, 2021). However, The Digital Divide, Defined By Disparities In Access, Resources, And Digital Competency, Moderates Fintech Usage, Emphasizing The Need To Address Digital Inequality To Maximize Fintech’s Potential Benefits. Meanwhile, Generation Z's Interest In Mobile Payment Adoption Identifies Financial Literacy, Perceived Ease Of Use, And Habit As Key Factors (Vindi Kusuma Wardani, 2024). Both Studies Underscore The Importance Of User Perceptions, Enabling Conditions, And Environmental Factors In Driving Fintech Adoption. While (Odei-Appiah & Adjei, 2021) Focus On The Societal Implications Of Fintech For Financial Inclusion, (Vindi Kusuma Wardani, 2024) Offers Insights Into Demographic-Specific Adoption Patterns. Together, These Findings Underscore The Necessity For Targeted Policies And Strategies To Bridge Digital Gaps And Foster Inclusive Financial Ecosystems.

1.7 Motivation And Financial Inclusion

Financial Inclusion Is Crucial To Economic Growth, Particularly In Developing Countries. Mobile Money Services And Agents Play A Significant Role In Driving Digital Financial Inclusion By Empowering Customers And Encouraging Continuous Usage (Shaikh Et Al., 2023). Motivational Workshops Can Effectively Increase Account Openings Among Unbanked Populations, With Mobile Financial Services Being The Preferred Option (Morshed & Maharjan, 2023). Barriers To Financial Inclusion Include Both Involuntary Factors (E.G., Distance To Services And Lack Of Documentation) And Voluntary Factors (E.G., Lack Of Funds) (Mossie, 2023). In Semi-Rural Areas, Loan-Taking Motivation Includes Acquiring

Equipment, Developing Income-Generating Activities, And Financing Education For Higher-Income Individuals (Bigawa Abel, 2018). To Promote Financial Inclusion, Policymakers Should Focus On Social Inclusion, Improving Financial Education, And Enhancing The Accessibility Of Financial Technologies (Mossie, 2023). Microfinance Institutions Contribute To Socioeconomic Development But Must Strive To Be More Inclusive (Bigawa Abel, 2018).

1.8 Research Gap

Even Though Digital Financial Services Are Being Successfully Integrated In Emerging Markets, A Significant Segment Of The Global Population Is Still Unbanked And Excluded From Formal Financial Systems, Especially In Developing Regions. Government Initiatives, Mobile Payments And Digitization Of Banking Are Hailed As Solutions To This Problem, Yet No Comprehensive Research Has Been Conducted To Assess Their Effectiveness And The Challenges In Applying Them. This Is Important Because It Will Help Inform Better Policies And Practices To Improve Financial Inclusion And For Reaching Equitable Access To Financial Services.

Methodology

1.9 Objectives Of The Study:

To Investigate The Impact Of Fintech On Digital Financial Inclusion The Following Objectives Are Laid Down.

a) To Investigate Government Initiatives For Digital Financial Inclusion.
b) To Evaluate The Impact Of Mobile Payment On Financial Inclusion.
c) To Evaluate The Impact Of Banking Digitization On Financial Inclusion.
d) To Propose Suggestions For Enhancement Of Financial Inclusion Through Fintech.

1.10 Hypotheses:

Based On The Research Questions Provided, Here Are Potential Research Hypotheses.
H_1: Service Trust Of The Bank Significantly Contributes To Digital Financial Inclusion.
H_2: The Habit Of The Users Significantly Contributes To Digital Financial Inclusion.
H_3: The Motivation Of The Users Significantly Contributes To Digital Financial Inclusion.
H_4: The Digital Currency Usage Significantly Contributes To Digital Financial Inclusion.
These Hypotheses Provide Testable Propositions That Align With The Research Questions And Objectives Of The Study, Focusing On The Relationships Between Service Trust, Habit, Motivation, Digital Currency Usage And Financial Inclusion.

1.11 Population And Sample:

The Universe Subject Of The Study, Since The Population Of Interest For The Survey, Was Users Of Financial Inclusion Through Mobile Money And Fintech Services. It Is, Therefore, Not Possible To Seek The Views Of Population As Per The 130 Crores, Making The Sampling Method Institutionalized Under The Jurisdiction Of Hyderabad. All Respondents Were Selected As Per Various Demographic Profiles Under Stratified Judgmental Sampling & Combined For The Sampling Frame. Eighty-One Respondents Were Used As The Sample Size Of This Study. As Per The Country's Geographical Regions, The Survey Data Was Collected Using The Data From The Hyderabad District.

1.12 Methods And Techniques Used For Data Analysis:

With This Study, Different Statistical Tools And Analytical Methods Are Extensively Used For A Holistic Data Analysis. Descriptive Statistics (And Presentation Of Result) Are Used For Quantitative Survey Data While Inferential Statistics For Being Able To Infer About Larger Population Based On Sample Correlation And Regression Analyses Were Performed To Determine Associations And Prediction Models For These Variables. The Data Collected Were Analyzed Using Partial Least Squares Structural Equation Modeling (PLS-SEM) 4, Which Can Effectively Handle Complex Relationships, Latent Constructs, Small Sample Size And Non-Normal Distributions. Data Were Analyzed In Two Steps: Measurement Model Evaluation, Followed By Structural Model Evaluation. Several Theoretical And Statistical Indices Were Used To Assess The Reliability, Validity Of The Constructs Including Cronbach's Alpha, Composite

Reliability, And Average Variance Extracted (AVE) For The Measurement Model And The Fornell-Larcker Criterion And The Heterotrait-Monotrait (HTMT) Ratio For Discriminant Validity. The Structural Model Evaluation Tested The Relationships Among The Constructs, Including Estimates Of Path Coefficients, Variance Accounted For (R-Squared) And Effect Sizes (F-Squared), With Bootstrapping (1000 Resamples) To Test For Their Statistical Significance. A Detailed Evaluation Was Conducted Through PLS-SEM 4 Software For Determination Of Predictive Modelling Along With Direct And Indirect Effects Of Variables, Depicting The Significance Of PLS-SEM On Data Linked With Complex Models And Small Samples.

1.13 Summary Of Methodology:

This Study Used Mixed Methods Design That Focused On Digital Financial Inclusion. Stratified Random Sampling Was Used To Collect Quantitative Data From The Eighty-One Participants. Data Was Collected Via Online Survey. This Study Used Partial Least Squares Structural Equation Modelling (PLS-SEM) 4 For Data Analysis, Taking Into Consideration Measurement And Structural Models To Evaluate Reliability, Validity And Relationships Between All Constructs. Such A Holistic Strategy Allowed For A Robust Exploration Of The Research Questions Through A Quantitative Lens.

Indian Government Initiatives For Digital Financial Inclusion

Different Initiatives Taken By Government Of India Are:

a) Pradhan Mantri Jan Dhan Yojana (PMJDY) — A National Mission On Financial Inclusion.
b) Digital India Is A Program To Keep India Digitally Empowered Society And Knowledge Economy.
c) National Automated Clearing House (NACH): NACH Is Essentially A Web-Based Solution Envisaged For Interbank, High-Volume Electronic Transactions.
d) E-Way Bill: Digital Transformation Of Paper-Based Permits In Indirect Taxation System.
e) GST E-INVOICE SYSTEM: Reporting Of The Invoice On A Real-Time Basis To A Government Portal For Standardized Reporting And Fraud Reduction.
f) Unified Payment Interface (UPI): Framework That Powers Various Bank Accounts Into One Mobile Application.
g) Digi Saathi: 24/7 Helpline For Digital Payment Products And Service Queries
h) UPI LITE: For Small Transactions Of Less Than ₹500
i) Direct Benefit Transfer (DBT): Reform For Direct, Timely, Transparent And Targeted Delivery Of All Benefits.
j) Version Of Rupay: First Global Card Payment Network From India
k) E-RUPI: Digital Voucher Enabling Contactless, Cashless Payments
l) Aadhaar Enabled Payment System (Aeps) : A Bank-Led Model And Online Interoperable Financial Inclusion Transaction.
m) Payment System For Feature Phone User – UPI 123PAY
n) Bharat Bill Payment System: (BBPS) Platform For Payment Of All Recurrent Bills.
o) MUDRA Scheme — Financial Aid To The Non-Corporate, Non-Farm Small/Micro Enterprises.
p) Digital Infrastructure As A Utility For Every Citizen.
q) Empowerment Through E-Governance And Wrapping Of Services On Integrated Platforms.
r) Focus On Empowering Citizens With Digital Skills, Especially In Rural Areas.
s) Harnessing Emerging Technologies To Innovate And Grow In The Digital Economy.
t) Enhanced Data Analytics And Fraud Detection Through Systems Integration (E.G., Fastag, Vahan).

Results And Analysis

The Respondents Were Predominantly Youth: The Age Bracket Of 18–25 Years Accounted For 71.6% Of The Responses. It Means That They Will Be In The Beginning Stages Of Their Career Or Schooling. 8.6% Of Authors Were In The 26-40 Years' Age Range, Which Indicates A Much Smaller Presence Of Mid-Career Authors As Well. The Middle Age Group (41-60 Years) Accounted For 17.3%, Indicating That There Are Now More Experienced Professionals. Finally, Individuals Aged 60 Years And Above Accounted For Only 2.5%, Indicating That Older Individuals Were Underrepresented In The Sample.

Table 1. Demographic Profile Of Respondents

Demographic Segmentation	Variables	Frequency	Percent
Age	18-25 Years	58	71.6
	26-40 Years	7	8.6
	41-60 Years	14	17.3
	Above 60 Years	2	2.5
	Total	81	100.0
Gender	Female	27	33.3
	Male	54	66.7
	Total	81	100.0
Occupation	Salaried Professional	16	19.8
	Self-Employed	7	8.6
	Student	48	59.3
	Unemployed	10	12.3
	Total	81	100.0
Monthly Income	Above Rs.1,00,001	11	13.6
	Rs 0 - Rs.10,000	53	65.4
	Rs 10,001-Rs. 50,000	10	12.3
	Rs.50,001-Rs.1,00,000	7	8.6
	Total	81	100.0

Source: Survey Result Using SPSS

There Was Imbalance By Gender With 66.7% Males And 33.3% Females As The Respondents Of The Online Questionnaire. This May Represent Broader Trends In Society Or The Uniqueness Of The Population Sampled.59.3% Of Respondents Were Students. This Is Consistent With The Age Profile, And Suggests That The Sample May Be Drawn Significantly From Educational Institutions. The Survey Respondents Were Largely Salaried Professionals, Making Up 19.8% Of The Total, Followed By Self-Employed And Unemployed Individuals At 8.6% And 12.3%, Respectively. This Distribution Suggests A Diverse Range Of Employment Statuses, But Reinforces A Strong Student Population.

The Monthly Income Statistics Further Reveal That 65.4% Of The Respondents Receive Between Rs.0 And Rs10,000 Which Is Indicative Of The Considerable Student Population. A Total Of 13.6% Of The Sample Earns Rs.1,00,001, Which Defines A Higher-Income Segment. The Rest Were Divided Between Rs10,001-Rs50,000 (12.3%) And Rs50,001-Rs.1,00,000 (8.6%). Moreover, The Higher Incidence Of Students May Lead To A Lower Income Level For A Majority Of The Population, As Highlighted By This Income Distribution.

1.14 Multicollinearity Test

Because High Correlations Can Affect The Determination Results Of The Model Estimation, A Multicollinearity Test Was Carried Out To Check For High Correlations Among The Independent Variables. As VIF Values Are Less Than Five And Tolerance Values Are Over 0.1, Multicollinearity Cannot Be Detected (Hair Et Al., 2019).

Table 2. Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	Servicetrust	.583	1.714
	Habit	.425	2.353
	Motivation	.534	1.873
	Digitalcurrencyusage	.748	1.337

a. Dependent Variable: Digitalfinancialinclusion

The Coefficient Table Reveals That The Independent Variables—Service Trust, Habit, Motivation, And Digital Currency Usage—Did Not Exhibit Significant Multicollinearity. This Is Evidenced By The Variance Inflation Factor (VIF) Values For All Variables Being Well Below The Standard Threshold Of 10, Indicating That Each Predictor Provides Unique Information To The Model. Specifically, Service Trust And Motivation Show Moderate Tolerance Values, With Vifs Of 1.714 And 1.873, Respectively, Reflecting A Healthy Degree Of Independence Between These Variables. Digital Currency Usage Stands Out As The Most Distinct Variable, Boasting The Highest Tolerance (0.747) And The Lowest VIF (1.337). In Contrast, Habit Has A Lower Tolerance Value (0.425) And A Higher VIF Of 2.353 Compared To The Other Variables, Suggesting Some Degree Of Multicollinearity. However, This Level Of Multicollinearity Is Not Severe Enough To Raise Concerns. Overall, The Analysis Indicates That The Predictors Are Reliable For Measuring Digital Financial Inclusion, And There Is No Risk Of Multicollinearity Distorting The Results. The Stability Of The Model Ensures That Each Variable Accurately Measures And Interprets The Dimensions Of Digital Financial Inclusion.

1.15 Multivariate Analysis

Analysis Of Measurement Model.

Measurement Model Assessment Examines The Relationship Between The Observed Or Other Measured Variables And A Latent Variable In A Given Analysis (Hair Et Al., 2019). Many Measuring Items With Numeric Values Were Obtained From The Respondents To Measure The Latent Variables. Thus, Reliability And Validity Of The Items Were Established. The Partial Least Squares Structured Equation Modeling (PLS-SEM) Technique (Richter Et Al., 2022) Was Used To Test The Proposed Model Using SMART PLS Version 4.0.

1.16 Convergent Validity And Reliability

Table 3 Presents The Findings Of The Measurement Model Analysis. Construct Reliability Was Evaluated Showing Cronbach's Alpha Scores Greater Than 0.70 CR Composite Reliability Values (CR) > 0.70(Hair Et Al., 2019). In All Constructs, Cronbach's Alpha Values And All CR Values Were Greater Than 0.70, Except For The AI Integration Construct, Which Enhanced Construct Reliability. Immediately After, Fls Are Above 0.708 (Apart From AI Integration), And Aves > 0.50, For Convergent Validity(Hair Et Al., 2019). Due To The Use Of AI Tools, The Factor Loading Value Of Other Variables Was > 0.708 Moreover, A Value Of AVE≥0.50 Suggests That The Latent Construct Explains At Least 50% Of The Variance Between The Observable Variables On Average.

Table 3. Result Of Measurement Model Analysis

Latent Variables	Items Code	Factor Loading	Cronbach's Alpha	Composite Reliability	Average Variance Explained
Digital Financial Inclusion (DFI)	DFI1	0.860	0.840	0.904	0.759
	DFI2	0.919			
	DFI3	0.831			
Service Trust (ST)	ST1	0.883	0.789	0.877	0.705
	ST2	0.852			
	ST3	0.781			
Habit (H)	H1	0.829	0.813	0.888	0.727
	H2	0.861			
	H3	0.867			
Motivation (M)	M1	0.922	0.870	0.919	0.791
	M2	0.911			
	M3	0.833			
Digital Currency Usage (DCU)	DCU1	0.847	0.794	0.875	0.701
	DCU2	0.775			
	DCU3	0.885			

Source: Survey Result Using PLS SEM

The Analysis Results Of The Measurement Model Indicate Good Psychometric Properties Of The Constructs Under Study. All Constructs (Digital Financial Inclusion, Service Trust, Habit, Motivation, And Digital Currency Usage) Met The Threshold Required To Show High Levels Of Internal Consistency With Cronbach's Alpha Values Between 0.789 To 0.870. These Figures Indicate That The Items In Each Construct Measure A Single Underlying Construct And Are Therefore Good Measures Of Their Respective Constructs.

Additionally, All Composite Reliability Was Greater Than 0.70; Consequently, The Scales Were Reliable In Assessing The Constructs Of Interest. The Average Variance Explained (AVE) Values Exceed The Criterion Of 0.50, Indicating That The Constructs Are Adequately Heterogeneous And Not Highly Inter-Correlated. Overall, These Results Enhance The Confidence That The Measurement Model Is Valid And Reliable, Corroborating That The Measurements Accurately Represent The Constructs Of Interest.

1.17 Discriminant Validity

As Presented In Table 4, All Values Of The Square Root Of AVE (Diagonal Elements In Bold) Were Greater Than The Inter-Construct Correlation Coefficients (Off-Diagonal Elements). This Guarantees That Each Latent Variable Is Unique And Different From Other Latent Variables.

Table 4. Result Of Discriminant Validity – Fornell-Larcker Criterion

	Digital Currency Usage	Digital Financial Inclusion	Habit	Motivation	Service Trust
Digital Currency Usage	0.837				
Digital Financial Inclusion	0.439	0.871			
Habit	0.510	0.613	0.852		
Motivation	0.409	0.439	0.652	0.890	
Service Trust	0.401	0.743	0.626	0.545	0.840

Source: Survey Result Using PLS SEM

This Table Presents The Results Of The Discriminant Validity Test Using The Fornell-Larcker Criterion. This Test Is Crucial To Ensure That The Constructs Measured In The Study Are Distinct And Do Not Measure The Same Underlying Phenomenon. The Diagonal Values Represent The Square Root Of The Average Variance Extracted (AVE) For Each Construct, Whereas The Off-Diagonal Values Represent The Correlations Between Different Constructs.

According To The Fornell-Larcker Criterion, Discriminant Validity Is Established When The Square Root Of A Construct's AVE Is Greater Than Its Correlation With Any Other Construct. Upon Analyzing The Table, It Is Evident That The Square Root Of The AVE For Each Construct (Digital Currency Usage, Digital Financial Inclusion, Habit, Motivation, And Service Trust) Exceeds Its Correlation With All Other Constructs. This Finding Provides Strong Evidence That The Constructs Are Sufficiently Distinct From One Another, Thus Supporting The Validity And Reliability Of The Measurement Model.

Table 5. Result Of Discriminant Validity – Heterotrait-Monotrait Ratio

	Digital Currency Usage	Digital Financial Inclusion	Habit	Motivation
Digital Financial Inclusion	0.504			
Habit	0.605	0.732		
Motivation	0.474	0.508	0.790	
Service Trust	0.484	0.910	0.779	0.643

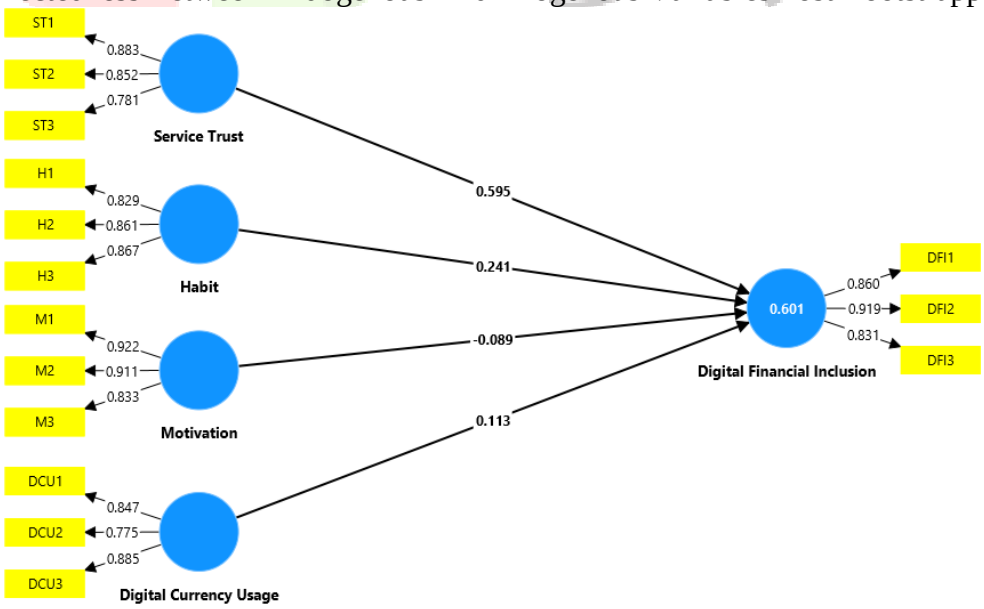
The Table Presents The Results Of The Discriminant Validity Analysis Using The Heterotrait–Monotrait Ratio (HTMT). This Method Assesses Discriminant Validity By Comparing The Correlation Between Items Measuring Different Constructs (Heterotrait Correlations) With The Correlation Between Items Measuring The Same Construct (Monotrait Correlations). HTMT Values Less Than 0.85 Generally Indicate Adequate Discriminant Validity.

Examining The Table, We Find That All HTMT Values Are Below 0.85, Suggesting That The Constructs Of Digital Currency Usage, Digital Financial Inclusion, Habitat, Motivation, And Service Trust Are Sufficiently Distinct From One Another. The Low HTMT Values Indicate That The Correlations Between Items Measuring Different Constructs Are Substantially Lower Than Those Between Items Measuring The Same Construct. This Finding Further Supports The Validity And Reliability Of The Measurement Model As It Demonstrates That The Constructs Do Not Measure The Same Underlying Phenomenon.

1.18 Interpretation Of Structural Model Analysis And Hypothesis Testing:

Since The Validity Of The Entire Model Was Established; The Structural Model Was Assessed (Hair Et Al., 2019) To Verify The Hypotheses. The Hypotheses That Indicate The Relevance Of The Relationships Are Accepted Or Rejected Using Structural Equation Model Analysis (Byrne, 2013; Schumacker Et. Al., 2004). In This Study, A Bootstrapping Approach With A Subsample Size Of 500 Was Used To Estimate The Structural Model (Richter Et Al., 2022). Path Coefficients (Beta), T-Statistics, And Corresponding P-Values Are Displayed Below.

Fig. 1. Interconnectedness Between Endogenous And Exogenous Variables Post Bootstrapping.



The Path Analysis Diagram Illustrates The Relationship Between The Endogenous And Exogenous Variables. The Endogenous Variables, Service Trust, Habit, Motivation, And Digital Currency Usage, Are Represented By Blue Circles And Hypothesized To Influence The Exogenous Variable, Digital Financial

Inclusion, Represented By The Larger Blue Circle. The Arrows Connecting The Variables Indicate The Direction Of Influence, And The Strength Of The Relationship Is Shown By The Path Coefficients.

This Diagram Shows Several Notable Findings. Service Trust, With A Path Coefficient Of 0.691, Appears To Have The Strongest Positive Impact On Digital Financial Inclusion. Habit And Motivation Also Exhibit Significantly Positive Relationships With Digital Financial Inclusion, Although With Slightly Lower Coefficients. Interestingly, Digital Currency Usage Shows A Negative Relationship With Digital Financial Inclusion, Suggesting That Increased Digital Currency Usage May Not Necessarily Lead To Greater Financial Inclusion. These Findings Provide Valuable Insights Into The Factors Influencing Digital Financial Inclusion And Can Inform Strategies For Promoting Financial Inclusion Through Digital Channels.

Table 6. Results Of Structured Model Analysis

Hypotheses	Paths	B	T-Statistics	P-Value	95% CL		Result
					LL	UL	
H_1	Digital Currency Usage -> Digital Financial Inclusion	0.113	1.127	0.260	-0.053	0.332	Insignificant
H_2	Habit -> Digital Financial Inclusion	0.241	1.909	0.057	-0.017	0.482	Insignificant
H_3	Motivation -> Digital Financial Inclusion	-0.089	0.695	0.488	-0.357	0.154	Insignificant
H_4	Service Trust -> Digital Financial Inclusion	0.595	5.279	0.000	0.358	0.801	Significant

Note: **P<0.01, *P<0.05, Based On A Two Tailed Test; T = ±1.96

This Table Summarizes The Outcomes Of Hypothesis Testing Related To Digital Financial Inclusion. It Examines The Relationships Between Four Independent Variables (Digital Currency Usage, Habit, Motivation, And Service Trust) And The Dependent Variable (Digital Financial Inclusion). The Table Provides Beta Coefficients (B), T-Statistics, P-Values, And 95% Confidence Limits For Each Hypothesis. These Elements Help Determine Whether The Relationships Between Variables Are Statistically Significant.

For The First Hypothesis (H1), The Path From Digital Currency Usage To Digital Financial Inclusion Has A Beta Coefficient (B) Of 0.113, With A T-Statistic Of 1.127 And A P-Value Of 0.260. Because The P-Value Is Greater Than The Standard Significance Threshold Of 0.05, This Result Is Marked As Insignificant. This Finding Suggests That Digital Currency Usage Does Not Have A Statistically Significant Impact On Digital Financial Inclusion. The 95% Confidence Limits Ranging From -0.053 To 0.332, Further Confirmed This Finding.

In The Second Hypothesis (H2), The Path From Habit To Digital Financial Inclusion Shows A Beta Coefficient (B) Of 0.241, A T-Statistic Of 1.909, And A P-Value Of 0.057. Although The P-Value Was Close To The Threshold Of 0.05, It Remained Slightly Above, Resulting In An Insignificant Outcome. This Finding Implies That Habit Does Not Significantly Influence Digital Financial Inclusion. The 95% Confidence Limits, Which Range From -0.017 To 0.482, Suggest Considerable Variability In The Impact Of Habitat On Digital Financial Inclusion.

The Third Hypothesis (H3) Examines The Relationship Between Motivation And Digital Financial Inclusion, With A Beta Coefficient (B) Of -0.089, T-Statistic Of 0.695, And P-Value Of 0.488. Given That The P-Value Is Much Greater Than 0.05, This Result Is Marked As Insignificant, Indicating That Motivation Does Not Have A Significant Effect On Digital Financial Inclusion. The Wide 95% Confidence Limits, Ranging From -0.357 To 0.154, Highlight The Lack Of A Clear And Consistent Relationship Between Motivation And Digital Financial Inclusion.

For The Fourth Hypothesis (H4), The Path From Service Trust To Digital Financial Inclusion Shows A Beta Coefficient (B) Of 0.595, T-Statistic Of 5.279, And P-Value Of 0.000. Since The P-Value Is Less

Than 0.01, This Result Is Marked As Significant, Demonstrating A Strong Positive Impact Of Service Trust On Digital Financial Inclusion. The 95% Confidence Limits, Ranging From 0.358 To 0.801, Indicated A High Level Of Confidence In This Finding. This Finding Suggests That Increasing Service Trust Can Significantly Enhance Digital Financial Inclusion.

1.19 The Assessment Of Prediction

The Predictive Ability Of Exogenous Constructs Is Determined By Different Measures Such As The Coefficient Of Determination (R^2), Effect Size (F2), Cross Validation Redundancy (Q^2) And The Sizes And Significance Of Path Coefficients ((Hair Et Al., 2019).

Coefficient Of Determination (R2).

The Explanatory Power Of The Structural Model In PLS Is Determined By The Coefficient Of Determination Or R2 Which Varies Between 0 And 1 (Hair Et Al., 2019). A Higher Value Of R2 Value Indicates A Better Prediction Of Endogenous Constructs.

Table 7. R – Square Of Endogenous Latent Variable

	R-Square	R-Square Adjusted	Comment
Digital Financial Inclusion	0.601	0.580	Moderate

Source: Survey Result Using PLS SEM

Table 7 Focuses On The Statistical Measures For The Endogenous Latent Variable "Digital Financial Inclusion. The R-Square Value Is 0.601, Indicating That The Model Explains 60.1% Of The Variance In Digital Financial Inclusion In Table 7. This Finding Suggests That The Independent Variables Included In The Model Have A Substantial Impact On The Dependent Variable.

The Adjusted R-Squared Value Is 0.580. Unlike R-Square, The Adjusted R-Square Accounts For The Number Of Predictors In The Model, Providing A More Accurate Measure Of The Explained Variance. In This Case, The Adjusted R-Square Value Of 58.0% Was Slightly Lower Than That Of The R-Square, Which Is Typical When Adjustments Are Made For The Number Of Variables. The "Comment" Column Rates This Level Of Explanatory Power As "Moderate," Indicating That While The Model Is Robust, There Is Still Room For Improvement In Explaining Digital Financial Inclusion.

Effect Size (F2).

According To Hair At. Al., (2019) Effect Size, Denoted As F^2 Is Used To Assess The Impact On Endogenous Constructs Due To Removing Predictor Construct. In Other Words, The F^2 Value Denotes Changes That May Occur In Sustainability After Removing Any Exogenous Constructs.

Table 8. Effect Size (F^2)

Constructs	F-Square	Effects
Digital Currency Usage -> Digital Financial Inclusion	0.023	Small
Habit -> Digital Financial Inclusion	0.063	Small
Motivation -> Digital Financial Inclusion	0.011	Small
Service Trust -> Digital Financial Inclusion	0.506	Large

Table 8 Shows The Impact Of The Four Constructs—Digital Currency Usage, Habit, Motivation, And Service Trust—On Digital Financial Inclusion. Service Trust Stands Out With A Large Effect Size (F^2 = 0.506), Indicating A Significant Positive Influence On Digital Financial Inclusion. The Other Constructs—Digital Currency Usage (F^2 = 0.023), Habitat (F^2 = 0.063), And Motivation (F^2 = 0.011)— Had Small Effect Sizes, Suggesting That They Had A Minor Impact On The Model. This Highlights The Crucial Role Of Service Trust In Enhancing Digital Financial Inclusion Compared With Other Factors.

Predictive Relevance (Q2).

If The Value Of Q^2 Is Greater Than 0.00, The Predictive Accuracy Of The Path Model Is Considered Acceptable (Hair Et Al., 2019).

Table 9. Construct Cross Validation Redundancy (Q^2 Predict)

Endogenous Construct	Q^2Predict	Comment
DFI	0.529	Predictive Relevance

Table 9 Illustrates That All The Exogenous Constructs Used In This Model Had Greater Predictive Relevance Towards Sustainability, As The Q^2 Prediction Was Higher Than 0.00 (Q^2 = 0.529).

Findings, Recommendations And Conclusions

The Results Of The Structured Model Analysis Provide Insights Into Fintech's Role In Digital Financial Inclusion. The Coefficient Table Indicates That Service Trust Is The Most Significant Predictor Of Digital Financial Inclusion With A Strong Positive Effect (B = 0.595, P < 0.01). The Other Variables — Digital Currency Usage, Habits, And Motivation — Showed Insignificant Effects On Digital Financial Inclusion. The R-Squared Value Of 0.601 Indicates That The Model Explains 60.1% Of The Variance In Digital Financial Inclusion, Which Is Considered Moderate. The Effect Size Analysis Further Highlights The Substantial Impact Of Service Trust, With A Large F-Square Value (0.506), Whereas The Other Constructs Have Small Effect Sizes.

These Findings Underscore The Critical Role Of Service Trust In Enhancing Digital Financial Inclusion. This Suggests That Fostering Trust In Digital Financial Services Is Paramount For Fintech Initiatives To Be Successful. Fintech Companies And Policymakers Should Focus On Building And Maintaining High Levels Of Trust Through Transparent Practices, Robust Security Measures, And Reliable Service Delivery. The Insignificant Effects Of Digital Currency Usage, Habits, And Motivation Imply That These Factors, While Still Important, Do Not Have A Strong Direct Impact On Digital Financial Inclusion. This Could Indicate That Users' Trust In The Service Provider Might Overshadow The Influence Of Their Habits And Motivations.

The Measurement Model Analysis Demonstrated High Reliability And Validity Of The Constructs Used In This Study. High Factor Loadings, Cronbach's Alpha, Composite Reliability, And Average Variance Explained (AVE) Values Confirmed That The Items Effectively Measured Their Respective Constructs. The Discriminant Validity Results, Assessed Using The Fornell-Larcker Criterion And Heterotrait-Monotrait Ratio, Indicated That The Constructs Were Distinct From One Another. These Findings Validate The Robustness Of The Model, Allowing For A Confident Interpretation Of The Relationships Between Variables.

Limitations And Directions For Future Research

This Study Primarily Focuses On Financial Inclusion In Hyderabad, India, Which May Limit The Generalizability Of The Findings To Other Contexts With Different Socioeconomic Or Technological Conditions. Additionally, The Rapid Evolution Of Fintech Technology May Lead To The Study Becoming Outdated As New Innovations Emerge During Or After The Research Period.

Ethical Statement.

We, Mohdshahzan And Mohammed Younus Hereby Declare On Our Conscious That For The Research Paper Entitled 'Digital Financial Inclusion Through Fintech', The Below Listed Has Been Met.

a) This Is The Authors' Original Work And Has Not Been Previously Published.
b) This Study Is Not Under Consideration For Publication Elsewhere.
c) The Paper Accurately And Comprehensively Reflects The Authors' Research And Analysis.
d) All Sources Used Were Properly Disclosed (Correct Citations) And Provided Proper References.

We Affirm To The Above And This Submission Adheres With The Authors Guideline Publication Policy.

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Appendix A: Research Questionnaire.

Construct	Code	Variable	Major Source
Demographic			
Age		18-25 Years 26-40 Years 41-60 Years Above 60 Years	
Gender		Male Female	
Occupation		Student Self-Employed Salaried Professional Unemployed	
Monthly Income		Below Rs.10,000 Rs.10,001-Rs. 50,000 Rs.50,001-Rs.1,00,000 Above Rs.1,00,001	
5 Point Liked Scale: 1. Strongly Disagree, 2. Disagree, 3. Neutral, 4. Agree, 5. Strongly Agree			
Digital Financial Inclusion (DFI)	DFI1	Fintech Can Be Used For Financial Inclusion	(Demir Et Al., 2022); Thomas, H., & Hedrick-Wong, Y.
	DFI2	Fintech Can Be Used For Financial Inclusion With Income Improvement	
	DFI3	Fintech Can Be Used For Financial Inclusion With Saving Improvement	
Service Trust (ST)	ST1	Fintech-Based Financial Inclusion Services Are Found To Be Trustworthy	(Senyo & Osabutey, 2020); (David Gefen, Elena Karahanna, 2003); (Pavlou, 2003)
	ST2	It Is Essential To Take Proper Care With Fintech Based Financial Inclusion Services	
	ST3	I Trust Fintech Based Financial Inclusion Services As Past Experience	
Habit (H)	H1	I Am Addicted Of Using Fintech Based Financial Inclusion Services	(Senyo & Osabutey, 2020); (Venkatesh Et Al., 2012)
	H2	I Use Fintech Based Financial Inclusion Services	
	H3	The Use Of Fintech Based Financial Inclusion Services Has Become A Habit For Me.	
Motivation (M)	M1	Using Fintech Based Financial Inclusion Services Is Fun.	(Senyo & Osabutey, 2020); (Venkatesh Et
	M2	Using Fintech-Based Financial Inclusion Services Is Enjoyable.	

	M3	Using Fintech Based Financial Inclusion Services Is Very Entertaining.	Al., 2012)
Digital Currency Usage (DCU)	DCU1	I Use Digital Currency Services Frequently	(Venkatesh Et Al., 2012)
	DCU2	I Often Use Digital Currency Services	
	DCU3	I Like To Use Digital Currency Services	