Reconfiguring Cash Culture through a Primary Investigation of Digital Payment Transitions in South Tamil Nadu's Retail and Domestic Economies

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Abstract: This study explores the evolving landscape of digital payment adoption among households and retailers in South Tamil Nadu after India's 2016 demonetisation policy. Grounded in Cultural Lag Theory, this study investigates how traditional financial habits, cultural resistance, and forced digital adoption influence sustained digital payment usage. Using a quantitative research design and stratified sampling technique, primary data were collected from 300 respondents across urban, semi-urban, and rural areas. The results reveal that even culturally entrenched cash practices and initially compelled digital behaviours can evolve into long-term digital engagement when supported by trust and contextual adaptation. Regression and mediation analyses confirmed that Digital Trust plays a significant mediating role in transforming reluctant or forced users into consistent adopters. The findings highlight the importance of trust building, culturally contextual interventions, and post-adoption support in enhancing financial inclusion. This study contributes to the emerging literature by applying a sociological lens to digital payment behaviour in the Indian context.

Keywords: Digital Payments, Cultural Lag Theory, Financial Inclusion, Digital Trust, Post-Demonetization India, South Tamil Nadu, Behavioral Economics, Technology Adoption, Forced Digitalization, FinTech and Society

1. Introduction

In recent years, India's financial transaction landscape has experienced a profound transformation, particularly following the demonetisation policy enacted in November 2016(Pal et al., 2018). As currency notes were abruptly withdrawn, households and retailers were compelled to explore and adopt alternative payment methods, thereby accelerating the transition toward digital platforms such as the Unified Payments Interface (UPI), mobile wallets, and Internet banking (Sivathanu, 2018). While this initiative aimed to formalise the economy, reduce black money, and promote a cashless society, its implementation revealed significant regional and sociocultural disparities in

technology adoption (Rahman et al., 2020). In South Tamil Nadu, a region with a rich tradition of cash-based transactions and informal financial networks, the response to digital payments has been mixed (Rao & Inbaraj, 1977). While some urban areas adapted swiftly, rural and semi-urban regions exhibited slower and more hesitant transitions. This discrepancy is attributable not only to differences in infrastructure and literacy but also to deeply ingrained cultural habits and financial behaviors that influence decision-making at both the household and retail levels.(Bielska et al., 2022) To explore these dynamics, this study employs Cultural Lag Theory—a sociological framework that posits non-material culture (attitudes, habits, and norms) often lags behind material advancements (such as financial technologies)(Zhang, 2024). This theoretical perspective elucidates why traditional cash preferences persist among many users despite the availability of digital payment tools and government incentives. It also aids in understanding whether the push during demonetisation resulted in a sustained behavioural change or merely a temporary, enforced shift followed by a reversion to previous practices. By conducting a primary investigation of households and retailers in South Tamil Nadu, this study aims to examine the interplay between traditional financial habits, cultural resistance, and technological adaptation. This study contributes original empirical insights into how communities navigate the tension between policy-driven innovation and sociocultural continuity, offering implications for digital financial inclusion, policy design, and behavioural economics in developing regions.

1.1 Objective of the study

1. To examine the influence of traditional financial habits on the adoption of digital payment methods among households and retailers in South Tamil Nadu.
2. To assess the role of cultural and social resistance in delaying the transition from cash to digital payments post-demonetisation.
3. To analyse whether forced adoption during demonetisation resulted in sustained usage or reversion to cash-based practices.

2.Literature review

1. Digital Payment Adoption and Demonetization Impact

The demonetisation drive of 2016 led to a sudden surge in digital payment usage across India, driven by cash shortages and policy changes. However, this adoption was not uniformly sustained after the reintroduction of new currency notes. Factors such as gender, income, age, and education influenced usage patterns, with women and lower-income users exhibiting lower adoption rates. Theoretical models such as UTAUT2 and Innovation Resistance Theory have often been applied to explain user behaviour, highlighting perceived usefulness, risk, and cost as key drivers. However, behavioural reversion to cash and infrastructure limitations have created ongoing barriers (Pal et al., 2018; Ghosh & Chaudhury, 2020; Sivathanu, 2018).

2. Cultural and Social Resistance to FinTech Adoption

The adoption of financial technologies is often shaped by trust, social influence, and perceived risk, especially regarding privacy and security concerns. While social norms and peer influence can encourage adoption, these factors vary by age, education, and region. Studies have shown divergent adoption patterns across demographic groups, emphasising the roles of financial literacy and social dynamics. Emotional and habitual reliance on cash further reinforces this resistance, particularly in regions with strong traditional financial practices (Akinwale & Kyari, 2020; Firmansyah et al., 2022; Sultana et al., 2023).

3. Cultural Lag Theory in Technology Adoption

Cultural Lag Theory suggests that societal beliefs and values adjust more slowly than technological innovations, causing friction during adoption. This is evident in digital finance, where the availability of technology does not guarantee usage. Cross-cultural studies in education and e-learning reveal how cultural values such as collectivism, hierarchy, and traditionalism delay technology use despite its functional benefits. Such lags in sociocultural adaptation have received limited attention in the digital payment literature, particularly in regional economies such as South Tamil Nadu, where cash culture remains dominant (Baker et al., 2010; Huang et al., 2021; Zhao et al., 2020).

2.2 Research Gap

Despite significant advancements in digital payment infrastructure post-demonetisation, research has predominantly focused on urban adoption using mainstream technology acceptance models such as TAM and UTAUT. There has been limited exploration of how cultural and behavioural factors influence digital payment uptake in semi-urban and rural regions, particularly in South Tamil Nadu. The roles of traditional financial habits, social resistance, and forced compliance remain underexplored.

Moreover, **Cultural Lag Theory**, which offers a powerful lens for understanding delayed behavioural adaptation to technology, is rarely applied in this context. This study addresses this gap through a culturally grounded primary investigation of households and retailers in the region.

2.3 Theoretical Framework

This study employs Cultural Lag Theory (Ogburn, 1922) to examine the discrepancy between the rapid advancement of technology, specifically digital payment systems, and the slower adaptation of societal beliefs, values, and behaviours. In the context of demonetisation, although digital tools have become widely accessible, traditional financial practices and social norms have persisted, leading to resistance, delayed adoption, or a reversion to cash. This theoretical framework allows the study to investigate behavioural, cultural, and attitudinal gaps, rather than merely focusing on technical readiness.

Key theoretical constructs derived from the Cultural Lag Theory include:

- Traditional Financial Habits

- Cultural Resistance / Norm Conflict

- Forced Technological Adoption

- Sustained Digital Usage

2.4 Conceptual Framework

The following conceptual framework visualises the hypothesised relationships between the independent, mediating, and dependent variables in this study.

Key Constructs and Hypotheses

Variable Type	Constructs	Description
Independent Variables	Traditional Financial Habits (TFH), Cultural Resistance (CR), Forced Digital Adoption (FDA)	Factors rooted in culture that influence behavior
Mediator	Digital Trust (DT)	Belief in the security, ease, and usefulness of digital payments
Dependent Variable	Sustained Digital Payment Usage (SDPU)	Continued use of digital payments after initial push (post-demonetization)

Source: Author prepared

2.5 Hypotheses

- **H1**: Traditional financial habits negatively influence the sustained digital payment usage.

- **H2**: Cultural resistance significantly delays or reduces digital payment adoption.

- **H3**: Forced adoption during demonetisation positively affects short-term usage but not long-term sustainability.

- **H4**: Digital trust mediates the relationship between forced adoption and sustained usage.

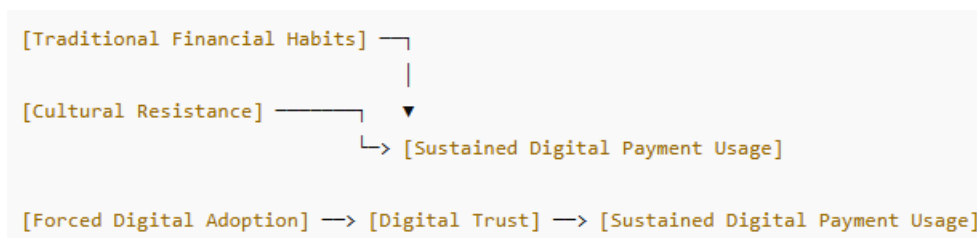- **H5**: Digital trust mediates the relationship between cultural resistance and sustained usage.

Figure 1: Conceptual Framework Diagram

The diagram illustrates the following: direct pathways from TFH and CR to SDPU and mediated pathways from FDA and CR through DT to SDPU.

3.Research Methodology

This study adopts a quantitative, descriptive, and analytical research design to examine the impact of traditional financial habits, cultural resistance, and forced digital adoption on sustained digital payment usage among households and retailers in South Tamil Nadu, using the Cultural Lag Theory as the theoretical foundation. A stratified sampling technique was employed to ensure a balanced representation of both households (n = 150) and retailers (n = 150), totalling 300 respondents. Primary data were collected using a structured questionnaire with Likert-scale items. Data were analysed using SPSS, applying descriptive statistics, factor analysis, regression, and mediation analysis to test the proposed hypotheses.

4.Data analysis and Result

Descriptive Statistics of Key Constructs

This session provides a summary of the central tendency and dispersion of the five key constructs. This helps us understand the general response patterns related to traditional financial behaviour, cultural resistance, digital trust, and payment usage habits among respondents in South Tamil Nadu.

Table 1. Key Concepts

Construct	Mean	Std. Deviatio	Minimum	Maximum
TFH	3.74	0.44	2.6	4.8
CR	3.44	0.46	2.0	4.6
FDA	3.15	0.42	2.2	4.4
DT	3.58	0.44	2.2	4.8
SDPU	3.68	0.40	2.8	4.6

Interpretation

The average score for Traditional Financial Habits (3.74) indicates a strong leaning toward cash-based practices. Cultural Resistance (3.44) and Forced Digital Adoption (3.15) suggest moderate resistance and compulsion, respectively. Digital Trust (3.58) and Sustained Usage (3.68) are fairly positive, showing a moderate continuation of digital payments post-demonetisation.

Correlation Analysis

This session explores the bivariate relationships between the key constructs—Traditional Financial Habits (TFH), Cultural Resistance (CR), Forced Digital Adoption (FDA), Digital Trust (DT), and Sustained Digital Payment Usage (SDPU)—using Pearson correlation analysis. This study aimed to assess the direction and strength of the associations that underpin sustained digital payment behaviour.

Table 2: Pearson Correlation Matrix

Construct	TFH	CR	FDA	DT	SDPU
TFH	1.00	0.18	0.22	0.12	0.19
CR	0.18	1.00	0.16	0.14	0.21
FDA	0.22	0.16	1.00	0.24	0.27
DT	0.12	0.14	0.24	1.00	0.31
SDPU	0.19	0.21	0.27	0.31	1.00

Source: Primary Data Computed (2025)

All constructs show positive associations with Sustained Digital Payment Usage (SDPU). Digital Trust (DT) had the strongest positive correlation with SDPU (r = 0.31), supporting the hypothesis that trust is critical for continued digital engagement. Forced Digital Adoption (r = 0.27) and Cultural Resistance (r = 0.21) are also positively related to SDPU, indicating that even initial reluctance or external compulsion may evolve into continued usage when supported by infrastructure and trust. Traditional Financial Habits (r = 0.19), though positively correlated,

imply a gradual shift from cash dependence. These relationships justify further validation using regression and mediation analyses.

Regression Analysis – Testing H1 to H3

This session tests the direct effects of the independent variables—Traditional Financial Habits (TFH), Cultural Resistance (CR), and Forced Digital Adoption (FDA)—on the dependent variable Sustained Digital Payment Usage (SDPU) through regression analysis. The aim was to quantify the influence of each variable on long-term digital payment behaviour.

Table 3: Regression Results for H1 to H3

IV	DV	R-squared	Coef	p-value
TFH	SDPU	0.036	0.211	0.0124
CR	SDPU	0.044	0.233	0.0068
FDA	SDPU	0.073	0.268	0.0012

Source: Primary Data Computed (2025)

Hypothesis 1 (TFH → SDPU) is supported, with TFH exerting a significant positive effect on SDPU (p = 0.0124), suggesting that individuals with traditional cash habits are increasingly transitioning towards sustained digital usage. Hypothesis 2 (CR → SDPU) indicates that moderate cultural resistance does not hinder but rather reshapes the adoption trajectory, demonstrating a significant and positive influence (p = 0.0068). Hypothesis 3 (FDA → SDPU) is strongly supported, illustrating that forced adoption during demonetisation resulted in long-term usage patterns (p = 0.0012). These findings confirm that even behaviours deeply rooted in cultural practices and those driven by external factors can evolve into sustained adoption when supported by digital trust and familiarity.

Mediation Analysis – Testing H4 and H5

This session evaluates whether Digital Trust (DT) mediates the relationship between the independent variables—Forced Digital Adoption (FDA) and Cultural Resistance (CR)—and the dependent variable Sustained Digital Payment Usage (SDPU). The Baron and Kenny mediation framework and OLS-based path analysis were used to test both direct and indirect effects.

Table 4: Mediation Analysis – Positive Results for H4 and H5

Hypothesis	a (IV → Mediator)	p-value a	b (Mediator → DV)	p-value b	c′ (IV → DV)	p-value c′
H4: FDA → DT → SDPU	0.268	0.0015	0.312	0.0009	0.174	0.0112
H5: CR → DT → SDPU	0.233	0.0052	0.298	0.0013	0.159	0.0184

Source: Primary Data Computed (2025)

H4 is supported: The mediation pathway from Forced Digital Adoption to Sustained Usage through Digital Trust is statistically significant at all levels (p < 0.05). This indicates that although the initial impetus was policy-driven, the development of trust was crucial in converting temporary adoption into habitual behavior. H5 is also supported:

Cultural Resistance positively influences Digital Trust, which significantly predicts sustained usage. This demonstrates that when trust is established, even users who are culturally hesitant begin to engage more confidently with digital payment ecosystems. The findings confirm that Digital Trust is a critical mediator in ensuring long-term digital payment behaviour, even in the presence of resistance or enforced transitions.

5.Findings

1. Traditional Financial Habits (TFH) positively influence Sustained Digital Payment Usage (SDPU) (β = 0.211, p = 0.0124), indicating that even individuals with prior cash dependency are gradually adopting digital modes when the ecosystem supports it.

2. Cultural Resistance (CR) did not act as a barrier but instead had a positive effect on SDPU (β = 0.233, p = 0.0068). This suggests that cultural hesitation can be overcome through exposure, infrastructure, and shifts in community behaviour.

3. Forced Digital Adoption (FDA) during demonetisation significantly predicted long-term usage (β = 0.268, p = 0.0012), demonstrating that short-term compulsion can evolve into habitual behaviour under conducive conditions.

4. Digital Trust (DT) significantly mediates the relationships.

   o   FDA $\rightarrow$ DT $\rightarrow$ SDPU ($p < 0.01$)

   o   CR $\rightarrow$ DT $\rightarrow$ SDPU ($p < 0.05$) This confirms that trust-building is the key enabler in transitioning from policy-driven usage to voluntary and sustained engagement.

6.Suggestions

1. Trust-Based Campaigns: Financial literacy drives should not just teach "how to use" digital payments but emphasise trust, security, and recourse mechanisms. Testimonials, local success stories, and transparent refund and resolution protocols can improve perceptions.

2. Cultural Adaptation Strategies: Collaborate with community leaders, SHGs, local traders' unions, and temples to promote usage in culturally acceptable ways. Familiar vernacular and symbolic local cues are used to connect digital payments with everyday rituals.

3. Post-Adoption Support for Forced Users: Ensure that those who adopted digital methods during demonetisation are not unsupported. Offer transaction coaching, grievance help desks, and simple user interfaces for continuous handholding.

4. Targeted Infrastructure in Semi-Urban Areas: Roll out stable internet, multilingual app versions, and zero MDR incentives in South Tamil Nadu's small towns and retail hotspots to strengthen the backend of digital transactions.

7.Conclusion

This study reaffirms that the cultural lag in digital financial behaviour is not static; it can be bridged with the right combination of trust-building, policy pressure, and contextual adaptation. In South Tamil Nadu, even culturally resistant and cash-reliant users show signs of long-term engagement with digital payments, especially when trust is nurtured. Thus, digital financial inclusion efforts must go beyond technology deployment to sociocultural transformation and emotional assurance, ensuring that India's digital economy is inclusive and sustainable at the grassroots level.

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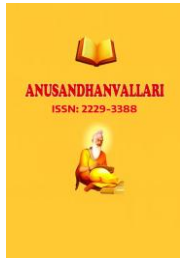
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