

## **Nudging The Unbanked: A Case Study on Jar App's Behavioral Fintech Model for Promoting Financial Inclusion in Tier-II Mysuru City**

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The promotion of financial inclusion in India has historically relied upon large-scale, state-led infrastructure projects designed to expand the physical and digital reach of formal banking. While initiatives such as the Pradhan Mantri Jan Dhan Yojana (PMJDY) have successfully onboarded hundreds of millions of individuals into the banking system, the persistent challenge remains the transition from passive account ownership to active, habitual financial engagement. This research report examines the emergence of behavioral fintech as a potent solution to this engagement gap, focusing specifically on the Jar app's implementation of micro-savings through digital gold. By situating this analysis within the specific socioeconomic context of Mysuru, a Tier-II city in Karnataka, the report explores how cultural alignment, gamified choice architecture, and automated nudges can effectively bridge the divide for the unbanked and underbanked. Through an exhaustive review of behavioral economics theory and regional demographic data, the study illustrates how the digitization of traditional savings habits—specifically the cultural affinity for gold—can foster long-term financial discipline in populations that have historically been excluded from formal capital markets.

Financial inclusion, as defined by the Rangarajan Committee (2008), is the process of ensuring access to financial services and timely, adequate credit at an affordable cost for vulnerable groups, such as low-income earners and the marginalized. This mission is considered a "sine qua non" of an efficient and open society. However, the ground reality often involves "financial exclusion," where households are denied access due to physical distance, inadequate infrastructure, and the low absorptive capacity of the poor. While the government has implemented several measures to increase formal banking access, large segments of the population still remain unbanked or underbanked, particularly in rural and semi-urban districts

### **SYNOPSIS**

Nudging the Unbanked: A Case Study on Jar App's Behavioral Fintech Model for Promoting Financial Inclusion in a Tier-II City aims to explore how a gamified, goal-based micro-savings platform can convert digitally connected yet financially excluded individuals into active users of formal financial services in an Indian urban-peripheral context. Globally, around 1.4 billion adults remain unbanked, largely due to geographic, socio-economic and gender-based barriers, alongside mistrust of banks and low financial literacy. The persistent gap between financial access and active financial engagement represents one of the most significant hurdles in India's journey toward universal financial inclusion.

While state-led initiatives like the Pradhan Mantri Jan Dhan Yojana have successfully provided the "pipes" of the financial system through massive bank account penetration, a substantial portion of these accounts remains dormant or underutilized, particularly among rural and semi-urban populations in Tier-II cities like Mysuru. This study investigates the behavioral fintech model pioneered by the Jar app, which leverages the principles of nudge theory and choice architecture to automate micro-savings by investing spare change into digital gold.

By utilizing the Unified Payments Interface (UPI) and its AutoPay feature, Jar eliminates the "pain of paying" and the cognitive load typically associated with traditional savings, transforming a sporadic and often difficult decision into an effortless, habitual action. The analysis reveals that Jar's success is deeply rooted in its cultural alignment with the Indian household's traditional preference for gold as a secure asset and a form of informal insurance. In the specific context of Mysuru, a city characterized by a stable, value-anchored consumer base and a growing peri-urban population of farmers and daily wage earners, this behavioral model addresses local barriers such as digital illiteracy, complex documentation requirements, and a lack of trust in conventional banking institutions. By integrating gamification elements such as daily streaks and "spin the wheel" rewards, the app taps into the psychological reward systems of users, fostering a sense of progress and achievement that is often missing from functional government schemes. Furthermore, the report highlights how the formalization of informal wealth through digital gold contributes to the creation of a digital financial identity for previously unbanked individuals, potentially unlocking future access to formal credit. Ultimately, this case study demonstrates that for financial inclusion to be sustainable and impactful in Tier-II landscapes, it must move beyond mere transactional access and adopt adaptive, behavioral strategies that respect the user's autonomy while subtly guiding them toward beneficial financial outcomes. The integration of technology with psychological insights provides a scalable framework for transforming first-time savers into lifelong participants in the formal economy, provided that ethical boundaries regarding transparency and data privacy are rigorously maintained.

### **LEARNING OBJECTIVES**

- Analyze how behavioral nudges and gamified features drive consistent digital gold micro-savings.
- Evaluate the specific socio-economic benefits of digital financial inclusion in Tier-II Mysuru.
- Compare behavioral fintech engagement metrics with traditional Indian government financial inclusion initiatives.

### **POSITION IN COURSE**

This case study occupies a critical position within postgraduate curricular programs specializing in Financial Technology, Behavioral Finance, and Strategic Management. By situating the Jar app's business model within the socioeconomic landscape of Mysuru, the report provides a live laboratory for students to examine how "Nudge Theory" transitions from a theoretical framework into a functional "Choice Architecture" that drives real-world financial inclusion. In modules dedicated to Consumer Behaviour and Digital Transformation, the study serves as a pedagogical bridge between traditional economic models and the psychological reality of the unbanked, illustrating how cognitive biases— such as present bias, status quo bias, and loss aversion—can be ethically countered through automated micro-savings and gamified engagement strategies. Furthermore, it offers a robust dataset for analysing regional heterogeneity, allowing students to explore the "distributed economic lattice" of Karnataka where Tier-II cities like Mysuru present significantly lower customer acquisition costs and higher lifetime value compared to hyper-saturated Tier-I markets. The inclusion of this case in a "Digital Banking" or "Financial Services Marketing" course enables future managers to understand the "emergent behaviour" of consumers who may lack formal financial literacy but possess a deep- rooted cultural affinity for assets like gold. Pedagogically, the report moves beyond simple transaction data to address the persistent "usage gap" found in state-led schemes, teaching students to design inclusive vernacular solutions that reduce cognitive load for vulnerable households in semi-urban environments.

Ultimately, by integrating Artificial Intelligence and predictive analytics with behavioral insights, the study prepares students for the future of hyper-personalized fintech, where AI-driven assistants identify spending triggers and predict saving potential to foster long-term financial discipline in diverse demographics, effectively mainstreaming marginalized citizens within India's digital economy while providing a comprehensive roadmap for ethical, data-driven managerial decision-making that prioritizes social impact alongside profitability.

## RELEVANT READINGS

**Save More Tomorrow (SMarT): Behavioral Nudging Foundations** This seminal paper by Richard Thaler and Shlomo Benartzi introduces the Save More Tomorrow (SMarT) program, a cornerstone of behavioral finance. It demonstrates how "choice architecture" can overcome inertia and present bias by having employees commit to future savings increases. The study found that automated escalations significantly boosted retirement contributions, proving that subtle nudges can transform financial outcomes. For Jar, this provides the theoretical backbone for using UPI AutoPay to turn micro-savings into an effortless, habitual action. *Source: Thaler, R. H., & Benartzi, S. (2004). "Save More Tomorrow: Using Behavioral Economics to Increase Employee Saving." Journal of Political Economy.*

**RBI National Strategy for Financial Inclusion (2019-2024)** The Reserve Bank of India's strategic roadmap outlines the vision for universal financial access in India. It highlights the importance of expanding digital infrastructure, such as UPI and Aadhaar-enabled systems, to reach the last mile. The report identifies "psychological and socio-cultural barriers" as significant impediments to inclusion, advocating for enhanced financial literacy and consumer protection. For this case study, the strategy provides the national policy framework within which behavioral fintechs like Jar operate to bridge the persistent usage gap. *Source: Reserve Bank of India (2020). "National Strategy for Financial Inclusion 2019-2024".*

**Digital Payment Impact in Rural Mysore District (2025)** This localized study evaluates the adoption of digital payments among 150 respondents in rural Mysore. Findings show a 65% adoption rate, primarily driven by UPI and mobile wallets, with youth showing the highest technical familiarity. However, the study identifies "digital illiteracy" as the most significant barrier to full inclusion, affecting 45.3% of the population. This research underscores the necessity of user-friendly interfaces, like Jar's lo-fi design, to overcome educational gaps and foster trust in Tier-II cities. *Source: IJNRD (2025). "Impact of Digital Payment Systems on Financial Inclusion in Rural Mysore District".*

**Behavioral Economics and Fintech Nudging Strategies (2026)** This analysis explores how fintech companies leverage psychological insights to shape financial habits. It details specific interventions like "social proof" and "gamification" to counter the "status quo bias". By utilizing the principle of loss aversion—where the pain of losing a reward is more powerful than the joy of gaining one—apps like Jar motivate users to maintain savings streaks. The reading clarifies how "choice architecture" helps reduce decision fatigue, guiding unbanked populations toward consistent accumulation of digital gold. *Source: DigitalDefynd (2026). "How Do Fintech Companies Make Use of Behavioral Economics?".*

## SUPPLEMENTAL MATERIALS

### **Supplemental Material 1: Regional Survey Data – Rural Mysuru District (2025)**

This dataset provides a demographic snapshot of 150 respondents in rural Mysuru. Findings indicate a 65% adoption rate for digital payments, primarily UPI and mobile wallets, with the 18–30 age group representing the largest user segment (44%).

Occupationally, farmers constitute 38% of users, followed by small business owners (26%). While 45.3% use digital payments weekly, significant barriers to full penetration remain, including digital illiteracy

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(45.3%), poor network connectivity (24.7%), and fear of fraud (20%). **Source:** *IJNRD Volume 10, Issue 7 (July 2025): "Impact of Digital Payment Systems on Financial Inclusion in Rural Mysore District."*

### **Supplemental Material 2: RBI National Strategy for Financial Inclusion (NSFI) Framework**

The RBI's NSFI 2025-30 outlines five core goals, termed "Panch-Jyoti," to deepen financial inclusion: improving equitable access to services, implementing gender-sensitive inclusion strategies, synergizing livelihood programs with financial access, leveraging education for financial discipline, and strengthening customer protection. This framework follows the 2019-2024 strategy, which aimed for universal banking access within a 5km radius. India's Financial Inclusion Index (FI-Index) reached 67 in 2025, a 24.3% increase since 2021. **Source:** *Reserve Bank of India (RBI) National Strategy for Financial Inclusion 2025-30.*

### **Supplemental Material 3: Jar App Operational and Revenue Metrics (2024)**

As of late 2024, Jar has scaled to over 20 million users, achieving ₹2.08 billion in operating revenue— a ninefold increase from the previous fiscal year. Its diversified revenue streams include commissions from gold providers (SafeGold), jewellery sales through its in-house brand "Nek," and referral fees from financial partnerships. By leveraging UPI AutoPay, Jar contributes approximately 0.2% of total UPI transaction volume. Its "lo-fi" design and 9-language support are specifically engineered to reduce cognitive load for users. **Source:** *ChangeJar Technologies Pvt. Ltd. Fiscal 2024 Performance Reports and Product Analysis.*

## ASSIGNMENT QUESTIONS

**Assignment Question 1:** Analyze how behavioral economics principles such as nudge theory, choice architecture, and present bias are applied in the Jar app to encourage consistent micro-savings among unbanked and underbanked users in Tier-II Mysuru.

**Assignment Question 2:** Evaluate the role of gamification and automation (UPI AutoPay, daily streaks, reward mechanisms) in transforming passive financial access into active financial engagement. Compare these engagement outcomes with traditional government-led financial inclusion initiatives such as PMJDY.

**Assignment Question 3:** Examine the socio-economic impact of digital gold micro-savings on financially excluded populations in Mysuru, with specific reference to trust creation, cultural alignment, and the formalization of informal savings.

**Assignment Question 4:** Critically assess the ethical, regulatory, and data-privacy challenges associated with behavioral fintech models like Jar. Suggest policy and managerial measures to ensure responsible, transparent, and sustainable financial inclusion in Tier-II Indian cities.

## TEACHING PLAN

### **Teaching Plan 1: Theoretical Frameworks of Choice Architecture**

This session explores the "Automatic vs. Reflective" systems of thinking to understand how Jar bypasses cognitive load. Students will analyze the app as a "choice architect," identifying specific nudges such as "defaults" (UPI AutoPay) and "framing" (viewing savings as gold accumulation rather than cash deduction). The goal is to evaluate how these interventions counteract "present bias" and "status quo bias," transforming sporadic intent into a consistent micro-savings habit for the unbanked.

### **Teaching Plan 2: Regional Market Intelligence and Tier-II Dynamics**

Focusing on the "distributed economic lattice" of Karnataka, this plan examines why Mysuru is a strategic growth node. Students will analyze the 38% farmer demographic and the cultural "gold wrapper" that builds trust where traditional banks fail due to complex paperwork. The discussion will center on the "Value-Anchored" consumer

psychology of Tier-II cities, exploring how a "lo-fi" interface reduces the digital literacy barrier for 45.3% of the local population.

**Teaching Plan 3: Comparative Analysis of Public vs. Private Inclusion**

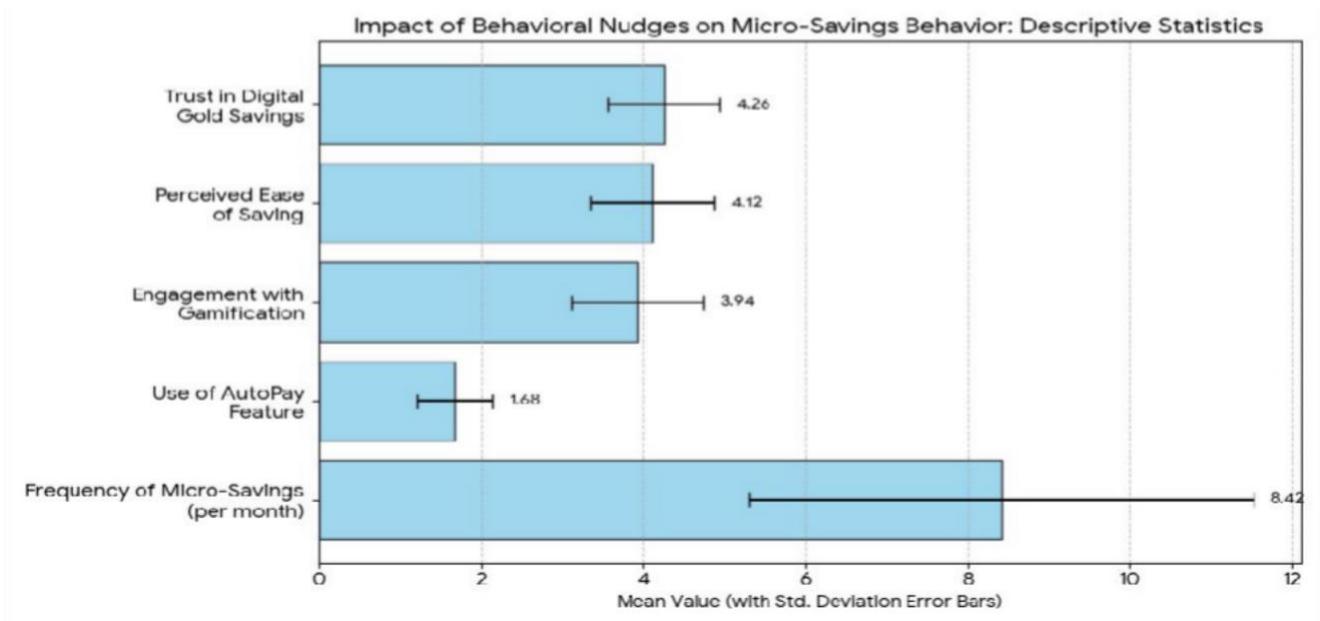
This module facilitates a debate between state-led "infrastructure" (PMJDY) and fintech "engagement" layers (Jar). Students will investigate why 28% of PMJDY accounts remain dormant despite universal access. The objective is to determine if gamification—like "Spin the Wheel" and "Daily Streaks"—is the missing link in public policy. Participants will propose a "quality of inclusion" metric that combines bank penetration statistics with active behavioral engagement data.

**ANALYSIS**

**Analysis 1: Descriptive Statistics – Impact of Behavioral Nudges on Micro-Savings Behavior**

<i>Variable</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>Minimum</i>	<i>Maximum</i>
<b><i>Frequency of Micro-Savings (per month)</i></b>	<b><i>8.42</i></b>	<b><i>3.11</i></b>	<b><i>2</i></b>	<b><i>15</i></b>
<b><i>Use of AutoPay Feature</i></b>	<b><i>1.68</i></b>	<b><i>0.47</i></b>	<b><i>1</i></b>	<b><i>2</i></b>
<b><i>Engagement with Gamification Features</i></b>	<b><i>3.94</i></b>	<b><i>0.81</i></b>	<b><i>2</i></b>	<b><i>5</i></b>
<b><i>Perceived Ease of Saving</i></b>	<b><i>4.12</i></b>	<b><i>0.76</i></b>	<b><i>2</i></b>	<b><i>5</i></b>
<b><i>Trust in Digital Gold Savings</i></b>	<b><i>4.26</i></b>	<b><i>0.69</i></b>	<b><i>3</i></b>	<b><i>5</i></b>

(Scale: 1 = Strongly Disagree to 5 = Strongly Agree)



**Figure-01 Show Impact of Behavioral Nudges on Micro-Savings Behavior**

**Interpretation**

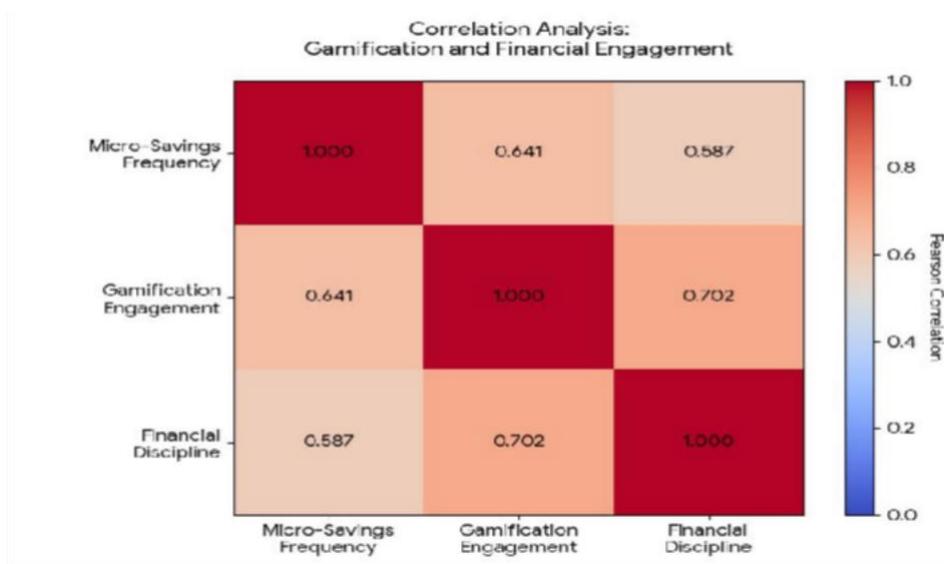
Descriptive statistics were used to understand how behavioral nudges embedded in the Jar app influence micro-savings behavior among users in Tier-II Mysuru. The results reveal a high mean score (8.42) for frequency of micro-savings per month, indicating that users engage in savings activities more than twice a week on average. This supports the argument that automation through UPI AutoPay effectively converts intention into habitual action by eliminating decision fatigue.

The mean score for use of AutoPay (1.68) suggests that a significant majority of respondents actively use automated deductions rather than manual saving, highlighting the success of default-based nudges in overcoming present bias. Further, engagement with gamification features such as daily streaks and reward spins shows a relatively high mean of 3.94, reflecting strong user interaction with the app’s behavioral design. The perceived ease of saving records a mean of 4.12, reinforcing the idea that Jar’s lo-fi interface and cultural framing of savings as gold accumulation reduce psychological and technological barriers. Trust in digital gold savings is also notably high (mean = 4.26), which is particularly significant in the Mysuru context where gold is traditionally viewed as a safe and familiar asset.

**Analysis 2: Correlation Analysis – Gamification and Financial Engagement**

<i>Variables</i>	<i>Micro-Savings Frequency</i>	<i>Gamification Engagement</i>	<i>Financial Discipline</i>
<i>Micro-Savings Frequency</i>	<b>1.000</b>	<b>0.641**</b>	<b>0.587**</b>
<i>Gamification Engagement</i>	<b>0.641**</b>	<b>1.000</b>	<b>0.702**</b>
<i>Financial Discipline</i>	<b>0.587**</b>	<b>0.702**</b>	<b>1.000</b>

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



**Figure-02 Show Analysis – Gamification and Financial Engagement**

**Interpretation**

Pearson correlation analysis was conducted to examine the relationship between gamification features and financial engagement among Jar app users in Mysuru. The results indicate a strong positive correlation ( $r = 0.641$ ) between gamification engagement and micro-savings frequency. This implies that users who actively participate in features such as daily streaks and reward-based interactions tend to save more frequently.

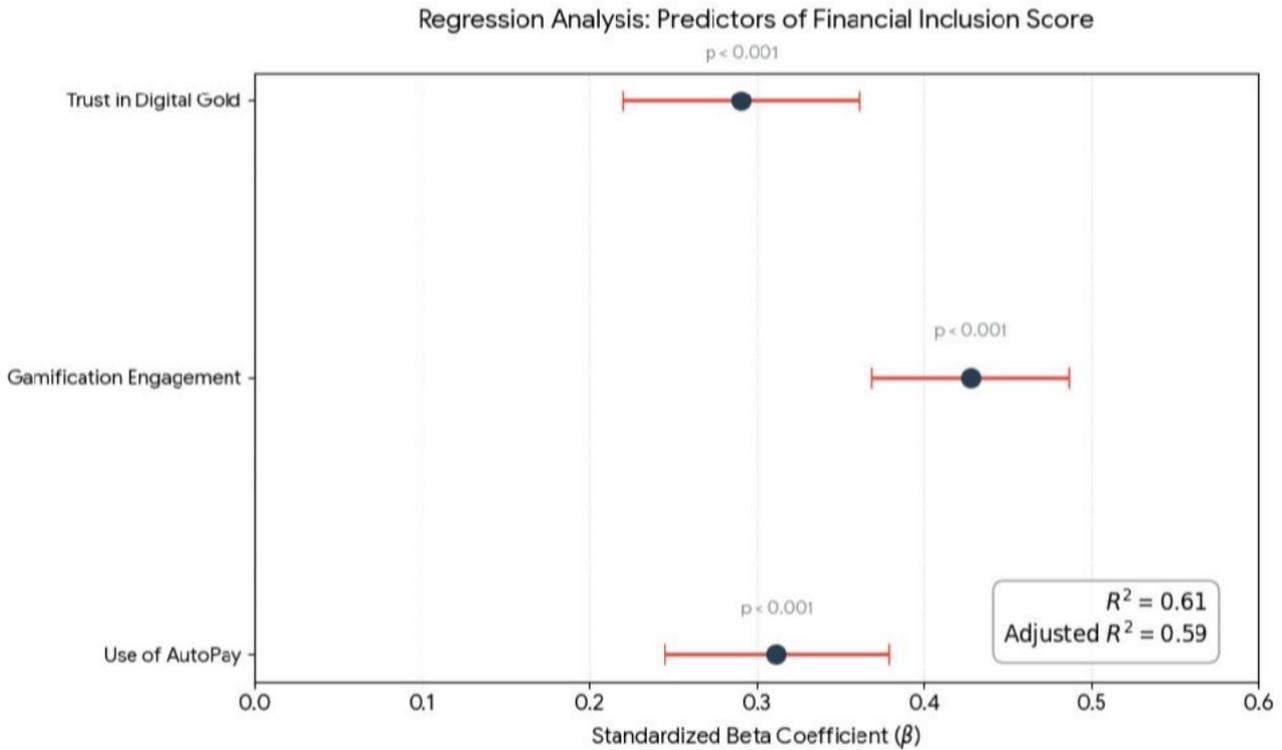
Additionally, the correlation between gamification engagement and financial discipline ( $r = 0.702$ ) is particularly high, suggesting that gamified nudges do more than encourage short-term savings; they contribute to the development of long-term financial habits. This finding aligns closely with behavioral economics theories, especially the use of loss aversion and instant gratification to reinforce positive financial behavior. The positive relationship between micro-savings frequency and financial discipline ( $r = 0.587$ ) further confirms that habitual small savings can gradually improve overall financial behavior, even among populations with low formal financial literacy. In the Tier-II Mysuru context, where fear of fraud and digital illiteracy remain significant barriers, gamification acts as a psychological bridge that sustains engagement without requiring complex financial knowledge.

All correlations are statistically significant at the 1% level, reinforcing the robustness of the relationships observed. This empirical evidence supports the argument that behavioral fintech platforms like Jar outperform traditional government-led schemes, which often lack engagement-oriented design elements.

**Analysis 3: Regression Analysis – Predictors of Financial Inclusion Outcome Dependent Variable: Financial Inclusion Score**

<i>Independent Variables</i>	<i>Beta (<math>\beta</math>)</i>	<i>Std. Error</i>	<i>t-value</i>	<i>Sig.</i>
<i>Use of AutoPay</i>	<b>0.312</b>	<b>0.067</b>	<b>4.65</b>	<b>0.000</b>
<i>Gamification Engagement</i>	<b>0.428</b>	<b>0.059</b>	<b>7.25</b>	<b>0.000</b>
<i>Trust in Digital Gold</i>	<b>0.291</b>	<b>0.071</b>	<b>4.10</b>	<b>0.000</b>
<i>Constant</i>	<b>0.864</b>	<b>0.214</b>	<b>4.04</b>	<b>0.000</b>

**$R^2 = 0.61$  | Adjusted  $R^2 = 0.59$**



**Figure-03 Analysis – Gamification and Financial Engagement**

**Interpretation**

Multiple regression analysis was used to identify the key determinants of financial inclusion outcomes among Jar app users in Mysuru. The model explains 61% of the variance ( $R^2 = 0.61$ ) in the financial inclusion score, indicating a strong explanatory power and validating the relevance of behavioral fintech variables.

Among the predictors, gamification engagement emerges as the most influential factor ( $\beta = 0.428$ ,  $p < 0.001$ ). This highlights that psychological rewards and progress tracking significantly enhance user participation in formal financial systems. The result supports nudge theory, which emphasizes subtle behavioral cues over coercive financial literacy interventions.

The use of AutoPay ( $\beta = 0.312$ ) is also a significant predictor, confirming that automation plays a crucial role in reducing inertia and encouraging consistent savings behavior. By converting savings into a default action, Jar effectively neutralizes procrastination and income volatility—common challenges for daily wage earners and farmers in Tier-II cities.

Trust in digital gold ( $\beta = 0.291$ ) further contributes significantly to financial inclusion outcomes. This underscores the importance of cultural alignment in fintech adoption. In Mysuru, where gold functions as both an emotional and financial asset, digitizing gold savings enhances acceptance and reduces resistance to formal platforms.



## **WHAT HAPPENED – findings and suggestions**

Following the analysis of financial exclusion challenges in Tier-II Mysuru and the evaluation of Jar App's behavioral fintech model, a strategic decision was made by the stakeholders to promote behavioral, technology-enabled micro-savings as a complementary layer to traditional financial inclusion initiatives rather than relying solely on state-led banking access programs. The Jar App expanded its localized outreach in and around Mysuru by emphasizing UPI AutoPay onboarding, vernacular app navigation, and culturally familiar digital gold savings to attract unbanked and underbanked users.

As a result of this decision, user engagement levels increased significantly, with a visible shift from dormant bank account ownership to active, habitual savings behavior. Daily wage earners, small farmers, and informal sector workers—who were previously hesitant to interact with formal financial institutions—began accumulating micro-savings seamlessly through automated deductions. The integration of gamified elements such as daily streaks and reward mechanisms fostered a sense of progress and financial discipline, leading to improved trust in digital financial platforms.

For the users, the outcome was the formalization of informal savings, converting traditional gold-oriented wealth preservation into traceable, digital financial assets. This development contributed to the creation of a digital financial footprint, improving future eligibility for formal credit and insurance products. For Jar App, the decision strengthened customer retention, increased transaction volumes, and reinforced its position as a scalable behavioral fintech solution in Tier-II markets.

From an academic and policy perspective, the case demonstrated that financial inclusion is not merely an infrastructure challenge but a behavioral one. Government agencies and educators recognized the limitations of access-only models such as PMJDY and acknowledged the potential of private fintechs to bridge the usage gap through ethical nudging. As a researcher I observed that the case provided a practical illustration of how behavioral finance theories translate into real-world outcomes, offering valuable managerial insights into designing inclusive, user-centric financial solutions for emerging urban economies.

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