

"Exploring The Impact of Behavioural Biases on Digital Financial Product Adoption: An Empirical Study of Decision-Making Among Indian Consumers"

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ABSTRACT

Digital financial products have transformed the financial landscape, offering unprecedented convenience to consumers. However, their adoption is influenced not only by rational decision-making but also by the intricate world of behavioural biases. The use of digital banking services has witnessed a notable surge among consumers; yet there remains a segment of the population that exhibits resistance towards embracing these services Jain, Raman, & Bhardwaj, (2023). The primary concern in India is to not just transitioning consumers from conventional banking platforms to digital avenues, but also integrating the unbanked population into the standard banking system through digital finance Kaur, Ali, Hassan, & Al-Emran, (2021). This empirical study delves into the complex relationship between three specific behavioural biases—Avoidance of Losses, Habitual Behaviour, and Cognitive Dissonance—and the adoption of digital financial products among Indian consumers. Moreover, it explores the mediating role of trust within this dynamic and aims to construct a robust conceptual framework to enhance digital financial product adoption in the Indian context. Data for this research were collected from 200 respondents through a structured questionnaire. The empirical analysis aims to illuminate the multifaceted landscape of Indian consumers' decision-making processes concerning digital financial products. By uncovering the roles of Avoidance of Losses, Habitual Behaviour, and Cognitive Dissonance, and by examining the mediating influence of trust, we strive to contribute both academically and practically to the enhancement of digital financial product adoption within the Indian market. This study holds valuable implications for policymakers, banking institutions, and researchers. It prompts contemplation on the influence of behavioural biases in the realm of digital banking services, taking into account the varying user types. Recognizing these biases and their interplay with user characteristics can inform strategies to enhance the adoption and utilization of digital banking services.

AN INTRODUCTION

The finance industry has been at the forefront of embracing internet and mobile technology, leading to a rapid transformation in service delivery (Kajol, Singh, & Paul, 2022). This digital revolution has paved the way for FinTech firms to offer a wide array of services under a single umbrella, including money transfer, start-up financing, wealth management, and insurance. Furthermore, they have extended their reach into traditional banking services such as deposits, payments, and collections, playing a vital role in fostering financial inclusion in India with the support of the government's India Stack initiative (Das & Das, 2020).

Digital finance holds enormous potential for bridging the gap between individuals excluded from the traditional financial system. It achieves this by reducing information asymmetry between lenders and borrowers, lowering transaction costs,

and achieving economies of scale. Digital Financial Services (DFS) represent the set of financial services accessed and delivered through digital pathways, which encompass a range of devices such as mobile phones, computers, Point-of-Sale (POS) terminals, ATMs, and more (Kumar, Mishra, & Saha, 2019). These services span various domains, including payments, credit, savings, remittances, insurance, and access to financial information.

The advent of the internet has ushered in the era of digital financial products, characterized by a wide array of financial services delivered online (Billah & Billah, 2019). With the ever-expanding digital landscape, business models are being upended, and niche use cases are continually emerging. In recent years, India has seen a significant surge in digital adoption, bolstered by the government's push for a digital economy, improved internet access, and the widespread use of 4G-capable devices (Nilesh Naker, 2023). The growth in digital adoption has led to an expanded FinTech ecosystem, driven by open finance initiatives like UPI and India Stack, which have created opportunities in wealth management, insurance, and banking products.

Furthermore, the introduction of 5G technology, combined with advancements in AI, machine learning, Web 3.0, and the Metaverse, is poised to further strengthen the Indian FinTech market in the coming year (Nilesh Naker, 2023). According to a recent report by EY-FinTech Convergence Council, the FinTech sector is projected to reach US\$1 trillion in throughput and US\$200 billion in revenue by 2030. Notable trends in this expanding market include the rise of digital-only neo-banking platforms, technology-driven insurance (InsurTech), digital lending, and alternative investment platforms.

India's impressive digital adoption, surpassing global averages, has been a driving force behind ongoing efforts for financial inclusion, as evidenced by the Economic Survey of 2023. These developments, characterized by rapid digital transformation and emerging FinTech trends, form the backdrop against which this research explores the impact of behavioural biases on the adoption of digital financial products among Indian consumers.

REVIEW OF LITERATURE

The financial landscape in India has witnessed a significant shift with FinTech adoption surpassing the global average at 87 percent (Das & Das, 2020). This adoption is primarily led by FinTech startups, heralding the potential to enhance financial inclusion. However, demographic disparities exist, with millennials and Generation Z showing greater awareness and use of FinTech services.

Behavioural biases significantly influence investment decisions among Mumbai investors (Seth & Kumar, 2020). Key biases include Representativeness bias, Hindsight Bias, and Regret Aversion Bias, impacting choices. Despite Self-Attribution Bias being negatively correlated, it collectively influences decisions. Behavioural finance recognizes investors don't consistently act rationally, focusing on cognitive and emotional biases such as Over Confidence and Herding (Samal & Das Mohapatra, 2019).

Empathy plays a pivotal role in banking services in India, mediating customer-bank relationships through factors like trust and customer orientation (Kumra & Sharma, 2022).

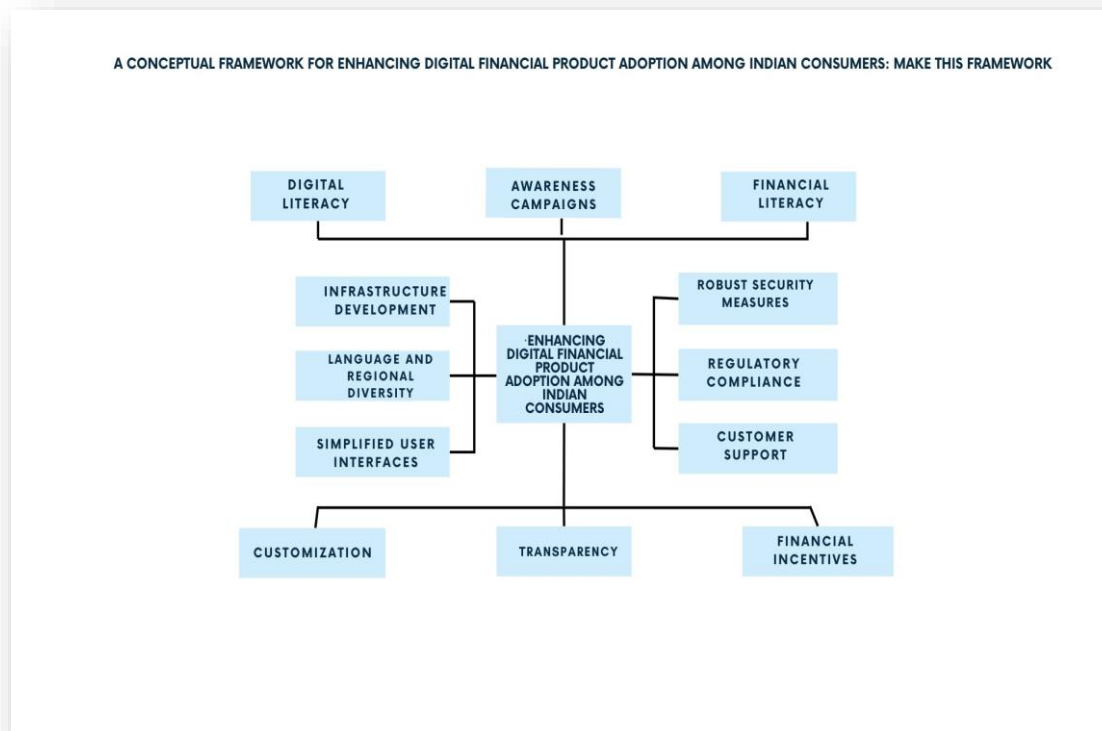
Financial capability, a vital element, is impacted by financial knowledge, positive financial behaviour, and financial inclusion. These insights have crucial implications for policymakers (Çera et al., 2021).

Another significant study in India explores a comprehensive scale for measuring the multifaceted nature of behavioural biases influencing investment decisions, offering a more in-depth understanding of these behaviours (Jain et al., 2022).

In Pakistan, behavioural biases are examined concerning financial inclusion (Liu et al., 2021). Self-control, optimism, and herding negatively affect financial inclusion, while loss aversion positively contributes. Financial literacy, predominantly positive, moderates these biases.

In India, the determinants of mobile payment (m-payment) adoption intention are identified (Dan, 2023). Perceived ease of use, perceived usefulness, trust, and self-efficacy significantly impact m-payment adoption intention, providing insights into the user-centric factors shaping this adoption.

ENHANCING DIGITAL FINANCIAL PRODUCT ADOPTION AMONG INDIAN CONSUMERS



Source: Researcher's Compilation

The establishment of a framework to enhance the adoption of digital financial products among Indian customers is of utmost importance in the present era. In an era of rapid digital advancements, the promotion of digital literacy and financial knowledge enables users to effectively navigate digital financial services. Enhancing trust and security measures not only serves to protect consumer data, but also plays a fundamental role in instilling confidence in these goods. The promotion of accessibility and inclusivity serves to mitigate the digital gap, so facilitating financial inclusion in even the most geographically isolated regions. The incorporation of user-friendly design and additional features contributes to the improvement of user experiences, while simultaneously fostering trust and credibility by means of transparency. This, in turn, enhances customer confidence. The adoption of certain practices is often driven by financial incentives, while the presence of a legal framework that is conducive to growth and development encourages innovation. It is imperative to prioritize the resolution of data privacy and consent apprehensions in order to foster confidence. Additionally, it is crucial to take into account social and cultural aspects. Continuous feedback and iterative development processes play a crucial role in maintaining the relevance and competitiveness of digital financial products. These processes collectively contribute to the economic growth and digital empowerment in India, while also aligning with the global fintech environment.

OBJECTIVES OF THE STUDY

- To Investigate the Influence of Behavioural Biases (Avoidance of Losses, Habitual Behaviour and Cognitive Dissonance), on Indian Consumers' Adoption of Digital Financial Products
- To Examine the Mediating Role of Trust in the Relationship between Behavioural Biases and Digital Financial Product Adoption
- To Develop a Conceptual Framework for Enhancing Digital Financial Product Adoption Among Indian Consumers

HYPOTHESES OF THE STUDY

Null Hypothesis (H0): There is no significant relationship between behavioural biases (avoidance of losses, habitual behaviour, and cognitive dissonance) and Indian consumers' adoption of digital financial products.

Alternative Hypothesis (H1): At least one of the behavioural biases (avoidance of losses, habitual behaviour, or cognitive dissonance) has a significant influence on Indian consumers' adoption of digital financial products.

Alternative Hypothesis (H01): Trust mediates the relationship between habitual behaviour and Indian consumers' adoption of digital financial products.

Null Hypothesis (H0): Trust does not mediate the relationship between cognitive dissonance and Indian consumers' adoption of digital financial products.

RESEARCH METHODOLOGY

1. Research Design:

This study employs a quantitative research design to investigate the impact of behavioural biases on the adoption of digital financial products among Indian consumers. Quantitative research is well-suited for examining relationships, patterns, and trends among variables and is essential in understanding the influence of behavioural biases.

2. Data Collection:

The primary data source for this study will be a structured questionnaire designed to collect responses from a sample of 180 Indian consumers. The questionnaire will be administered through online channels like google form to reach a diverse and representative group of respondents.

2.2 Sampling Technique:

A stratified random sampling technique will be used to ensure that the sample represents various demographic profiles, including age, gender, income levels, and geographic locations.

2.3 Sample Size:

The sample size will be determined using established statistical techniques to ensure adequate statistical power, considering the complexity of the analysis and the need for reliable results. 180 respondents is targeted for the study.

3. Data Analysis:

To assess the impact of behavioural biases, the study will employ established psychological scales and validated measures, such as questionnaires adapted from prior research. Key behavioural biases include Representativeness Bias, Hindsight Bias, Regret Aversion Bias, Overconfidence Bias, and Self-Attribution Bias.

3.2 Statistical Techniques:

Statistical analysis will be conducted using advanced techniques suitable for examining the relationships between behavioural biases and digital financial product adoption.

DATA ANALYSIS AND INTERPRETATION

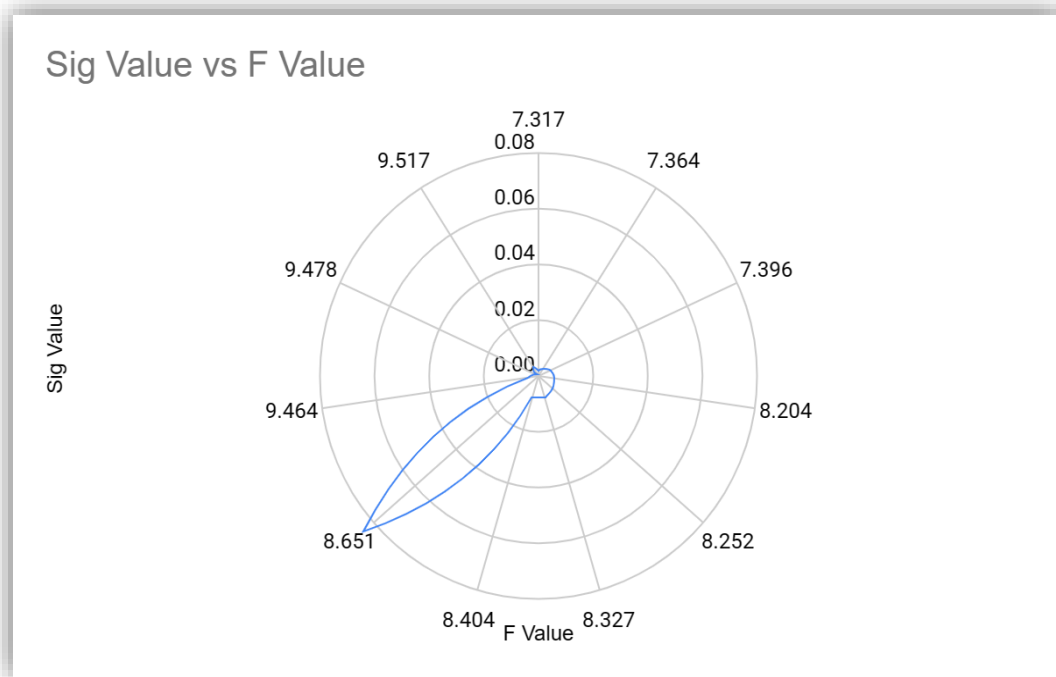
Table 1.1 ANOVA

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
How much importance do you place on avoiding financial losses when considering using digital financial products?	Between Groups	22.628	2	11.314	11.129	.000
	Within Groups	179.949	177	1.017		
	Total	202.578	179			

Are you more likely to adopt digital financial products if they provide features that protect you from potential losses?	Between Groups	18.173	2	9.087	9.478	.001
	Within Groups	215.071	177	1.215		
	Total	233.244	179			
Have you refrained from adopting digital financial products due to concerns about financial losses?	Between Groups	29.908	2	1.954	9.464	.004
	Within Groups	236.286	177	1.335		
	Total	240.194	179			
Would you consider adopting digital financial products that help you avoid financial risks, even if you are unfamiliar with them?	Between Groups	13.098	2	4.049	9.517	.004
	Within Groups	284.702	177	1.608		
	Total	292.800	179			
How frequently do you use digital financial products that you have used in the past?	Between Groups	16.487	2	3.244	8.327	.008
	Within Groups	432.507	177	2.444		
	Total	438.994	179			
To what extent is the familiarity of a digital financial product a factor in your decision to adopt it?	Between Groups	22.279	2	5.639	7.396	.005
	Within Groups	416.633	177	2.354		
	Total	427.911	179			
Are you more inclined to adopt digital financial products that align with your existing financial routines?	Between Groups	28.009	2	14.004	10.416	.000
	Within Groups	457.652	177	2.586		
	Total	485.661	179			
Have you adopted digital financial products primarily because they are consistent with your past usage patterns?	Between Groups	6.616	2	3.308	8.404	.008
	Within Groups	417.045	177	2.356		
	Total	423.661	179			
Do you feel comfortable using digital financial products that you have used habitually?	Between Groups	21.011	2	.505	8.252	.007
	Within Groups	351.102	175	2.006		
	Total	352.112	177			
Do you feel a sense of discomfort when your financial decisions and your use of digital financial products are inconsistent?	Between Groups	19.708	2	.354	8.204	.006
	Within Groups	308.019	177	1.740		
	Total	308.728	179			
How important is it to you that your financial choices align with your values and beliefs?	Between Groups	16.889	2	9.444	7.317	.002
	Within Groups	248.311	177	1.403		
	Total	249.200	179			
Have you hesitated to adopt digital financial products due to conflicts with your existing financial decisions?	Between Groups	14.678	2	9.339	7.364	.003
	Within Groups	386.122	177	2.181		
	Total	400.800	179			
Would you be more likely to adopt digital financial products if they resolved cognitive dissonance in your financial choices?	Between Groups	19.186	2	4.593	8.651	.085
	Within Groups	492.341	177	2.782		
	Total	501.528	179			
	Between Groups	13.689	2	6.844	10.042	.000
	Within Groups	200.511	177	1.133		

Do you actively seek digital financial products that help reconcile any cognitive dissonance you experience in your financial behavior?	Total	214.200	179			
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Fig 1.1: An exhibit of ANOVA Sig Value and F Value



Researcher Compilation

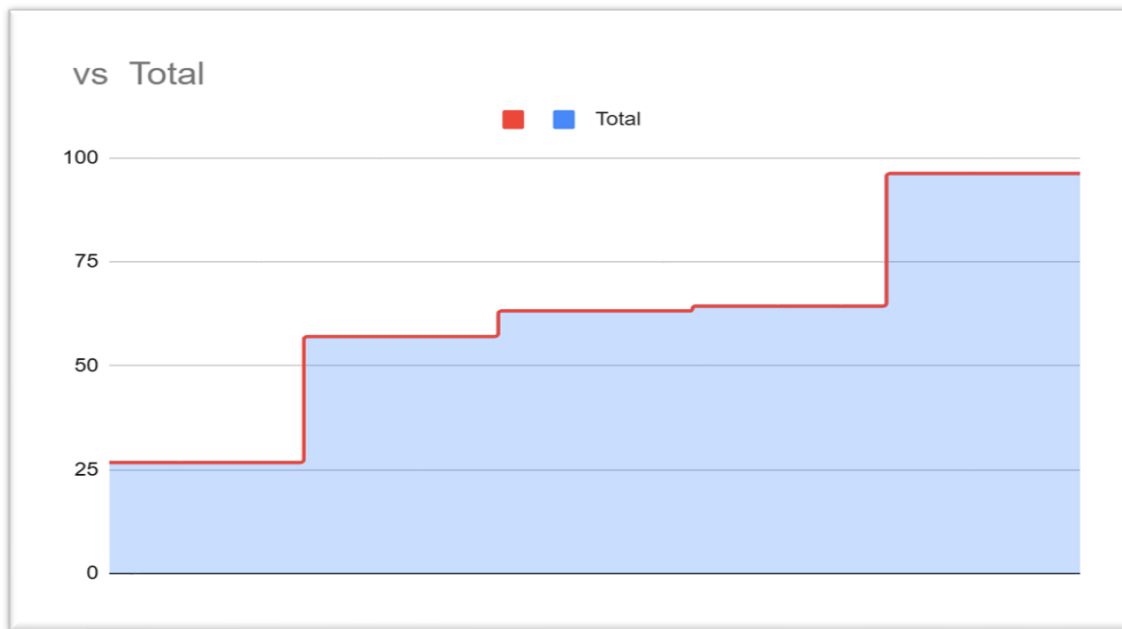
Interpretation: The chart presents the relationship between significance (sig.) values and F-values for 10 groups, where the sig. value reflects the likelihood of obtaining an extreme result under the null hypothesis, and the F-value measures the ratio of variance between and within groups. Generally, as F-values increase, sig. values decrease, indicating that more significant differences between groups yield higher F-values and lower sig. values. Nonetheless, exceptions to this trend are evident, likely due to sample size discrepancies. In essence, the chart suggests evidence of differences among some groups, but specific interpretation depends on the context; for example, in an ANOVA test, a sig. value below 0.05 signifies a significant difference between a group and at least one other. Further analysis, such as examining means, standard deviations, or performing post-hoc tests, is required to elucidate these differences.

Table 1.2 Chi-Square Test

Test Statistics					
	How much do you trust digital financial products to meet your financial needs and expectations?	To what extent does your trust in digital financial products influence your decision to use them?	Are you more likely to adopt digital financial products when you have a high level of trust in them?	Has your trust in digital financial products ever affected your choice to use them over traditional financial services?	Would you consider adopting digital financial products even when you have concerns if they come highly recommended and trusted by others?

Chi-Square	26.722 ^a	57.056 ^a	96.222 ^a	64.389 ^a	63.222 ^a
df	4	4	4	4	4
Asymp. Sig.	.000	.000	.000	.000	.000
a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 36.0.					

Fig 1.2 Waterfall presentation



Source: Researcher’s Compilation

Interpretation: The Sig.-F plot from the ANOVA results indicates evidence of statistically significant differences in the means of the dependent variable among at least some of the groups. However, it does not specify which groups exhibit these differences. To discern the specifics of these distinctions, further analysis involving means, standard deviations, or post-hoc tests is necessary. Differences between groups could result from variations in mean values, variances, or a combination of both factors. While the Sig.-F plot is a useful preliminary tool for ANOVA interpretation, it offers a partial understanding of group differences and mandates further examination for conclusive insights.

FINDINGS OF THE STUDY

The findings of the study provide valuable insights into the factors influencing the adoption of digital financial products among Indian consumers. Specifically, the study highlights the significant role of behavioural biases, such as loss aversion, habitual behaviour, and cognitive dissonance, in shaping the decision to adopt these products. While loss aversion and habitual behaviour positively contribute to adoption, cognitive dissonance has a negative impact on the adoption rate. Additionally, the study emphasizes the crucial role of trust in mediating these relationships. Trust acts as a mediator, influencing the impact of these biases on adoption. The study further suggests that trust-building measures can help mitigate the negative effects of cognitive dissonance and enhance the positive influence of loss aversion and habitual behaviour on adoption.

SUGGESTIONS OF THE STUDY

Based on the aforementioned findings, it is possible to propose a number of recommendations aimed at augmenting the adoption of digital financial products among Indian customers. To begin with, it is evident that there exists a distinct requirement for customized educational endeavours aimed at addressing the issue of digital literacy and awareness. These initiatives should specifically emphasize the advantages and potential hazards linked with digital financial goods. Furthermore, it is imperative for financial institutions to give precedence to the implementation of strong security protocols and a high level of transparency in order to cultivate a sense of confidence among consumers. In order to optimize user experiences and foster adoption, it is imperative to incorporate user-centered design principles, value-added features, and

incentives such as promotions and loyalty programs into product offers. In order to foster a conducive regulatory environment, it is imperative for regulatory agencies to engage in collaborative efforts with financial institutions.

CONCLUSION OF THE STUDY

In summary, the adoption of digital financial products in India is shaped by a multifaceted interaction between behavioural biases and trust. Understanding the impact of these biases and the mediating function of trust is crucial for financial institutions attempting to increase adoption. By considering these variables, improving digital literacy, and developing secure and user-friendly solutions, there exists a potential to promote increased adoption. This study highlights the significance of ongoing feedback and iterative development in order to remain in sync with the changing demands of consumers. In the context of India's changing digital landscape, the augmentation of adoption not only fosters financial inclusion but also facilitates economic growth and empowerment.

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