

The Impact of Digital Payment Systems and Mobile Wallets on Spending Habits of Adolescent Students belonging to Tier-2 Cities

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ABSTRACT

In today's Indian economy, there has been a radical change from physical currency transactions to an advanced digitized payment system. As a result of this phenomenon, the common financial transactions done by adolescent students in Tier-2 cities like Bikaner have radically changed. This paper will discuss the effect of digital payments and mobile wallets on the transaction frequency, discretionary spending level, and psychological awareness of adolescents aged 15-19 years. Using the quantitative and cross-sectional survey research method, data was collected from 200 adolescent students using stratified convenience sampling and structured questionnaire. The theories used in the analysis include "pain of paying," and "spendception" that discusses the psychological ease and emotional disconnect when conducting the transactions using digital payments. In the independent sample t-test ($t = 14.215$), it was found that there is a statistically significant difference in the frequency of low-value shopping, where the mean of UPI users (14.65) is significantly different from that of cash users (8.92). The findings show that the lack of physical money as the reference point creates a "micro spend trap" for impulsive spending. These research results have shown the existence of a major "knowledge-behavior gap" among digital native children and stress the importance of ensuring that the NEP 2020 is revised to incorporate digital financial resilience as an essential life skill.

Keywords: Digital Payments, UPI, Adolescent Spending, Tier-2 Cities, Pain of Paying, Financial Resilience.

Introduction

It is widely believed and mentioned that there is a drastic transformation that has taken place in the current economy of India. The Indian economy has shifted drastically from cash money to real-time payments using technology, which are powered by the Unified Payments Interface (UPI) and the National Payments Corporation of India (NPCI). The major reasons for the transformation are the demonetization that took place in 2016 and the outbreak of the Coronavirus pandemic, during which there was a 300 percent increase in contactless transactions. In 2024, India became the leading nation in terms of real-time payment volumes and exceeded 20 billion transactions per month.

While the early digital proliferation occurred mostly in the urban centers, today's expansion is happening predominantly in tier 2 and tier 3 cities, commonly called "Bharat". In semi-urban cities like Bikaner and other aloke cities in Rajasthan, the usage of digitization by the youth has increased by more than 300%. In these cities, the advent of banking through smartphones has completely changed the normal financial dealings of the youth students, creating a special socio-economic atmosphere. The revolution completely changed the thinking, behavior and life style of the youth of the ere. It specifically

affected the adolescent students of tier-2 cities, like Bikaner, because they come to touch to this revolution all of sudden whereas the adolescents of metropolitan cities experience it gradually. As the internet facilities and smart phones reached out the comparatively small cities, adolescents become the first witness of experiencing things like e-shopping. The advertising skills and the offers attracted this class first. It is equally true that this class of native completely tiered by the local market activities till the time of arousing e-marketing. It motivated them to enter and participate in digital payment systems. Initially, adolescents, were using digital payment systems only for remote shopping but now it become a fashion to pay by UPI at the local markets, even very small amounts of rupees like Rs.5 to Rs. 200, at the door of small business centers like stationery or a betel shop. Though, there is no harm in paying by UPI the small amounts, but the habit of use of UPI simultaneously, increasing bad habits in these users. Alongside the increase in drug addiction, online gambling, deception and fraud, the shopping of unnecessary things like dresses, perfumes, and other ostentatious items which are frequently advertise on social media, is certainly tense the parents as well as the stakeholders of society.

It is true that adolescents (ages 15–19) represent a unique cohort of "digital natives" who have come of age alongside the rapid proliferation of mobile wallets and UPI applications but at the same time it become uttermost priority to check their activities and behavior for the safety purpose. Sorrowfully, in the race of digitalization parents are far behind than their wards, due to the lack of education and their own traditional thinking about use of money. This is most visible in tier-2 and tier-3 cities. Unlike previous generations, these students frequently use digital platforms for everyday needs—ranging from online shopping and mobile recharges to food delivery and peer-to-peer transfers whereas elderly people are occasionally use this to pay a large amount or when they have not any other options of payments at a particular point of time.

The move from cash to digital banking for adolescent students poses several behavioral risks. It is no secret that adolescence is a period when there is increased impulsivity, coupled with continued development of the prefrontal cortex that manages impulse and planning for the future. According to the studies carried out, the lack of a physical medium as a reference point will cause such adolescents, who are in the process of regulating their finances, to indulge in irresponsible and imprudent financial behaviors.

Based on the above discussion and conducted research, a number of research gaps are observed that need to be addressed prior to carrying out the current study on the impact of digital transactions on spending by adolescents in Tier 2 cities. Such gaps include geographical, demographic, methodological, and substantive ones.

- **Geographical Gap:** Though there has been an explosion in digital payment usage in "Bharat" (tier 2 and tier 3 cities), previous literature tends to focus mainly on metropolitan cities or the entire country at large. There is a dearth of empirical evidence on the relationship between digital adoption and actual consumer behavior in tier 2 cities.
- **Demographical Gap:** Most of the literature present currently deals with college students (18-24) or young adults (21-28 years). The adolescent school-going students (15-18 years) tend to get included in the broad category of consumers, thereby creating a gap as to what kind of risk-reward balance does this demographic maintain.

Problem Statement and Rationale for the Study

Even though young people have high digital literacy levels to engage in online business in tier 2 cities, there is still an immense gap between the knowledge and behavior of the youth. The matter of concern is the time and reasons behind engaging in certain business. They do understand how to conduct transactions but they do not have an ability to differentiate between necessity and desire. This drives them into problematic behaviors. Moreover, even though these teenagers might have an idea of compound interest or budgeting, they lack financial literacy.

Objectives

- The major purpose of this research is to understand how digital payment mechanisms impact the level, amount, and psychological awareness regarding the frequency and discretionary spending among adolescents in tier 2 cities.
- Through analyzing the relationship between technological convenience and cognitive distortions, this research intends to offer significant information for stakeholders that can be used to improve the NEP 2020 framework to include digital financial resilience as an important life skill.

Literature Review

As we make a deeper investigation into the current literature available to us, we realized there is one key aspect of the pain of paying theory – which is, the psychological cost of spending money reduces as the method of transactions becomes less tangible than making the payment in cash; and this theory applies equally to adolescents as well as young or old people. Making payments in cash makes the consumers realize the loss of money immediately, providing a natural mechanism of inhibition. On the other hand, making digital payments creates an “abstraction” of the money, reducing the psychological connection of the consumer with their money. Scientific research proves that 84% of the teens admit that physical cash feels like more of an “expense” than digital payments. [Sharma, V., & Arora, S. (2026), Prelec, D., & Loewenstein, G. (1998), Soman, D. (2021)]

The latest research also defined the psychological impact generated by the digital interface as “Spendception”, meaning the reduction of psychological barriers to spending due to transaction speed and detachment of emotion. The literature reveals that the smoothness of the user interface/user experience such as one-tap checkout, biometric payment methods, and immediate approvals transforms consumer behavior from “frictionless to thoughtless”. This transition results in a “cashless cushion effect” in which the mental perception of the cost of an item goes down compared to paying through cash. Studies carried out on Indian youth reveal that UPI and mobile wallet payments result in 19% extra spending per month. [Lahiri, A. (2026), Faraz, N. (2025), Suandana, N. P. W., (2025).]

One of the main behavioral effects seen in the literature is known as the “micro-spend trap,” wherein several small, repetitive digital transactions ranging from ₹50 to ₹350 go unnoticed. They may be related to the purchase of minor things such as street food, transportation costs, or even online subscriptions. The fact that they involve smaller amounts means that there is not enough “payment pain” to cause evaluation, and hence there exists a “realization gap” in terms of time, wherein students feel as though they know what is happening financially because of their app balance but face cognitive shock on looking at their bank statement each month. [Hou, L., Hsueh (2021), Muteru, H. M. (2025), Mehra, K., & Singh, P. (2021)]

So, existing literature confirms that digital payment adoption in India is not merely a technical shift but a behavioral revolution that reshapes consumption patterns and self-control.

Hypothesis

There is not significant difference in display of frequency of low value, non-essential shopping of adolescent students utilizing digital transactions and students primarily relying on cash.

Methodology

• Research Design

In order to analyze the link between the use of digital payments and expenditure behavior by teenagers, a quantitative and cross-sectional survey research design will be utilized in this study. Descriptive and analytic approaches will be utilized to determine the behavioral trends currently prevalent and the statistical associations between certain variables like the convenience of using the applications and impulsive expenditure by the teenagers.

• Study Setting

The study takes place in Tier 2 city of Bikaner (Rajasthan), representing the frontier of development in digital payments in Tier 2 cities of India. The environment includes secondary and senior secondary educational institutes where both old and modern payment systems coexist with each other.

• Population and Sampling

- **Target Population:** The population comprises adolescent students aged 15 to 19 years currently enrolled in secondary schools.
- **Sampling Technique:** The sample size chosen for the study comprises of 200 adolescents who have been selected by applying the principle of stratified convenient sampling method. Stratification is done according to gender and type of school i.e. government schools versus private schools. This will ensure that the sample is representative of the adolescent population of tier two cities. While probability sampling is always preferred, but convenient sampling is done due to practical reasons.

Research Instrument

Primary Data is gathered through a structured and self-administered questionnaire carried out using Google Forms. The tool has been developed into four main thematic sections namely:

- **Demographics:** Age, Gender, Class, and Socioeconomic Background of Parents.
- **Usage Behavior:** The frequency of digital payments made, mode of payment chosen (UPI and Mobile Wallets), and period since adoption.
- **Expenditure Behavior:** Estimated amounts spent per month before and after the adoption of digital payment and type of transactions.
- **Psychological and Behavioral Constructs:** Scaled on a 5-point Likert Scale (from 1 = Strongly Disagree to 5 = Strongly Agree). Constructs include; UPI Convenience, Impulse Spending, Peer Influence, and Financial Awareness.

Procedures

Target educational institutions are identified within the Bikaner city limits. After obtaining institutional permission, survey links are disseminated through academic WhatsApp groups and email chains. Participants are provided with a brief introduction regarding the research objectives and completion time (estimated at 5–8 minutes). Upon completion, data is automatically logged into a central database for cleaning, which involves removing incomplete or logically inconsistent entries.

Data Analysis Results

- When students were asked about their primary mode of payment for daily, non-essential personal expenses, 69 % students accepted that they use UPI apps linked to their own or parents accounts.
- Out of adolescent students who use UPI apps for payments, 36% making 1 to 5 transactions on average per week, 50% use 6 to 12 transactions, and rest 14% in habit of more than 12 transactions per week by UPI.
- An Independent sample t-test was performed to assess the difference of frequency of low value, non-essential shopping between the group of UPI users and the group of cash users. Mean of the two groups are 14.65 and 8.92 respectively. The results are shown in following table –

Students	N	Mean	Mean Difference	S.D.	df	t	Significance
UPI Users	100	14.65	5.73	3.42	198	14.215	0
Cash Usera	100	8.92		2.15			

According the figures shown in above table, for t-value 14.215 p value is less than .05 so the null hypothesis that there is no significant difference in the frequency of low-value, non-essential shopping between adolescent students using digital transactions and those relying on cash is rejected. It is concluded that students utilizing digital transactions display a significantly higher frequency of shopping compared to cash users.

- Average of adolescent students who are tend to buy snacks, clothes or pay expenses of canteen when they can scan a QR code rather than paying cash is 3.68, average of students who feel comparatively less worrying paying by UPI rather than cash is 3.71 and lastly average of students who accept that marketing tactics built into apps frequently convince them to buy things which are not planned previously is 3.91. These figures statically prove the theory that frictionless digital apps increase impulsive behavior.

Discussion

The results show that paying through UPI reduced "Pain of Paying" means digital interfaces dull the emotional loss felt when parting with money, acting as a "cashless cushion." Again, digital users' higher mean (14.65) confirms that small UPI transactions (₹50–₹350) bypass cognitive brakes, leading to higher frequency.

Conclusion

Digital systems are fundamentally altering adolescent consumption. The lack of tactile feedback encourages more frequent, impulsive, low-value purchases.

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