

A Study on Consumer Spending in India with reference to Cashless Economy

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Abstract

The fast growth of online payment systems has greatly changed the landscape of consumption of Indians and is hastening the Indian transition towards a cashless economy. This paper will look into how the implementation of cashless payments affects consumer spending behaviour in India and in particular the degree of expenditure and behavioural changes linked to the use of a digital transaction. Based on primary data gathered on 300 consumers, the research paper employs the descriptive statistics and inference method, to prove the relation between the use of cashless payment and spendings of the consumers. The findings from the paper show that there is a significant positive relationship between the usage of cashless payment methods and spending behaviour of the consumers, which is statistically significant and thus supports the idea that the more a person uses digital payment methods, the more spending he or she will have. These findings indicate that convenience, transaction friction, and ease of payment are important in decisions made to spend in a cashless setup. The research adds value to the current body of knowledge as it empirically confirms the relationship between the adoption of digital payments and consumer spending effects in the Indian market and provides useful knowledge to policymakers, financial organizations, and providers of online payment services to facilitate a balanced and inclusive cashless economy.

Keywords: Cashless economy, digital payments, consumer spending behaviour, payment adoption, etc.

Introduction

The consumer marketplace of India is experiencing a structural change in the consumer spending, which occurs through the use of digital rails, at a rate of quick expansion with policy focus on a less-cash/cashless economy. A number of inflection points have influenced the evolution of the transition, including the 2016 shock of demonetisation, the generalisation of the digital acceptance infrastructure, and the standardisation of instant (mobile-based) payments in the mainstream. The literature on the cashlessness agenda in India demonstrates that not being cashless, but being a policy and technology retropositormodal a policy-and-technology trend into which regulators, banks, fintechs, merchants, and end users can fall (over the years) cashless, less-cash, and contactless have all come to mean different things (Sam et al., 2021). Studies also warn that being a cashless society is not merely a technical one since it is heavily bound up with issues of inclusion, trust, risk, and uneven access to devices, connectivity, formal finance (Fouillet et al., 2021; Sam et al., 2021).

Digital payments may also make a realistic change in the level and composition of spending, based on consumer-behaviour perspective. Cashless instruments can raise the frequency of purchases, discretionary purchases, and impulse purchases because they will reduce transaction frictions and purchase payments will be more convenient. Empirical finance Protests using the 2016 demonetisation episode trace forced retreat to digital payments by consumers formerly using cash and trace such substitution to the increased measured expenditure in certain circumstances (Agarwal et al., 2024). Simultaneously, macro evidence shows that demonetisation brought about actual economic contractions in the cash-starved districts, despite increased adoption of alternative payments, which industry indicates that the association between cash constraints, digital substitution, and consumption is heterogeneous at households, locations, and time horizons (Chodorow-Reich et al., 2020). Additional work explicitly representations payment choice, which discovers gains in welfare and consumption effects by cash reliance and capacity to replace into non-cash assets (Bajaj & Damodaran, 2022).

It is concerning this background that an intensive research on consumer spending in India relative to the cashless economy is pertinent to the theory and practice alike. Theoretically, it projects technology-adoption views, which have traditionally been based on intention and

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usage, to downstream consumption outcomes (Patil et al., 2020). Practically it also provides information on the design of payment ecosystem and consumer protection: by helping clarify whether cashless tools are related with increased spending, changes in category mix (e.g. essential and discretionary spending), or that this variation would change outcomes among geodemographic and socio-economic and social groups (e.g., demographic and socio-economic). Lastly, it also leads to policy conversations in which digitalisation is seen as formalisation and inclusion, whereas the dangers of being left behind and engaged in inequality in adopting digital money are known (Chandrasekhar and Ghosh, 2018; Fouillet et al., 2021).

Literature Review

Telecommunication Policy The cashlessness push in India has been researched as a changing conglomeration of institutions and infrastructures, as opposed to a straight-forward substitute of cash. According to Sam et al. (2021), cashless in India has been characterized widely and realized via various instruments and stories and as such needs to be analyzed within the system design and best practices at end-users. Similarly, Fouillet et al. (2021) records how the process of demonetisation was accompanied by a significant increase in the uptake of digital payments using RBI data, but conclude that the effect of digitalisation can further deepen pre-existing inequalities, particularly in situations with unequal access to digital resources and financial ability.

The critical analysis of political-economy also further problematises the cashless agenda by suggesting that the reduction of cash use must be evaluated against the social costs, fees, risks of surveillance and exclusion processes. Athique (2019) conceptualizes cashlessness in Digital India as a policy initiative that needs to be socially accepted, and thus people need to change their behaviours, and not just implement technology. Chandrasekhar and Ghosh (2018) characterize the push towards a digital payment as associated with demonetisation as a kind of financialisation of the payments system and warns that less cash can be costly to citizens and small merchants and can not be enhancing welfare in all communities.

A significant body of journal studies analyzes the reasons behind the adoption of the mobile payments and platform-based digital tools by the consumers. The models of adoptions adopted in this literature tend to extend on the existing models like TAM and

UTAUT/UTAUT2 (Davis, 1989; Venkatesh et al., 2003; Venkatesh et al., 2012) with models uniquely created to consumer payment trust, perceived risk, anxiety, and grievance redressal.

The Indian context gives high-citation evidence of a study by the International Journal of Information Management by giving an extension of meta-UTAUT to incorporate personal innovativeness, anxiety, trust, and grievance redressal; their findings emphasize that the primary role of maintaining usage behaviour in addition to usefulness and social influence lies in trust and problem-resolution mechanisms (not merely intention). More up-to-date platform-specific research investigates adoption of UPI that employs an elongated meta-UTAUT methodology to identify the roles of performance expectancy, attitude and trust in clarifying the use behaviour in the Indian urban residents (Razi-ur-Rahim et al., 2024). Collectively, these sources indicate that the factors that influence adoption are a confluence of the perceived value, the comfort of the behaviour, and the assurance by institutions-needs which can likely mediate any connection between digital-payment usage and the results of consumer spending.

Most policy-relevant literature expands beyond the adoption to explore whether or not digital payments alter consumption and spending. Agarwal et al. (2024) use a difference in the level of pre-shock cash dependence in consumers created by the demonetisation to estimate a causal effect of the adoption of digital payment on spending, the Review of Financial Studies. They determine that consumers whose expenditure was dependent on cash transferred to digital expenditure and demonstrated a significant and sustained enlargement of quantifiable expenditure in the examined shopping environment, which aligns with the foreseen influence of processes like lower transaction costs and deactivated endowment impacts during digital spending.

Nonetheless, macro Evidence in the Quarterly Journal of Economics provides a valuable contradiction: districts with worse problems with cash experienced worsening economic activity (measured by levels of night lights and employment surveys) despite greater adoption of alternative payment methods, which suggests that liquidity constraints in the short run can be dominant, and that places and peoples are not digitally substituted in whole or in an even manner (Chodorow-Reich et al., 2020). This difference is partly resolved by acknowledging that, in the case of micro studies, a treatment effect on local average treatment will be found in the group of so-called compliers adopting digital payment under constraint, and in the case

of macro studies, that the equilibrium impacts, such as informal-sector shocks, credit frictions, etc.

Adding to these views, Bajaj and Damodaran (2022) theorize consumer payment choice under being heterogeneously preferred and constrained, and quantify the welfare costs of demonetisation that both the impact of consumption and welfare effects depend on the cash dependence, and the substitution capacity, and middle consumption deciles are disproportionately influenced.

More evidence about the ability of shocks to create lasting use of payment-technology adoption is given by Crouzet, Gupta, and Mezzanotti (2023), suggesting that once consumers and merchants have coordinated themselves around digital rails, the system cannot move entirely back to cash even, in the event of liquidity normalisation.

Research Gaps

In the field of journal research, there are two findings that can be considered strong, namely (i) cashless transition in India is not an equal phenomenon but rather a heterogeneous institutionally mediated phenomenon (Fouillet et al., 2021; Sam et al., 2021); and (ii) The use of digital payments is powerfully determined by trust, perceived risk, and complaint-resolution ecosystems, not just by convenience and utility (Patil et al., 2020; Razi-ur-Rahim et al., 2024). But gaps exist in the literature on spending out that prompt the current issue:

- Granularity of the outcomes: most studies pay attention to adoption, intents or aggregate activity (rather than criteria to consumer spending: levels, frequency, discretionary share, category substitution).
- Segment heterogeneity: consumers do appear to have heterogeneity in terms of cash dependence, income, and geography, yet consumer-spending studies tend to be not that delicate (urban-rural, gender, age, informal-sector dependence).
- Mechanisms and protective measures: the sequence between the use of cashless survival and expenditure can be intervened by the reduction of friction, credit-fronting features (e.g., pay-later), and psychological accounting; these put in place must be transparently tested alongside consumer-protective variables of trust and grievances redress (Patil et al., 2020; Agarwal et al., 2024).

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- Policymaking conflict: even though the digital adoption rate remains documented as stable and consistent, and the impact of expenditures is questioned, expenditure outcomes should be viewed through the prism of inclusion/exclusion and welfare consequences (Chandrasekhar and Ghosh, 2018; Bajaj and Damodaran, 2022).

To this end therefore, a study design that concomitantly investigates the cashless payment adoption, consumer spending behaviour with variables that are explicitly heterogeneous (cash dependence, location, socio-economic profile) and mechanism variables (trust, grievance redressal, perceived security) would be a viable addition to the cashless -economy literature in India.

Objective:

This study will also discuss the effect of the cashless culture on consumer spending behaviour in India by looking at the depth and behaviour of digital payment adoption and exposure on consumption decision making. Precisely, it aims at measuring the shift in frequency of spending, levels of expenditure, and category, or area, of consumption with payments effected by cashless mode; determining socio-economic and demographic influences that determine the usage of cash modes of payment, evaluating the influence of trust, security perception, convenience, and redressing grievance mechanisms on the usage of cashless modes of payment; and analyzing whether the shift to cashless economy has disparate impacts on the spending habits of consumers based on their income, age, and urban-rural status in India.

Methodology:

The research design chosen in the study is descriptive and analytical because it aimed to investigate the linkage between cashless economy and consumer spending behaviour in India. The primary data will be gathered using structured questionnaire distributed to consumers using different forms of cashless payment like UPI, debit/credit card and mobile wallet and the sample size is 300 using stratified random sampling to have representation of consumers in terms of age, income, occupation and urban and rural brackets. Peer-reviewed journal articles, reports of the RBI and publications of other international financial institutions are used as sources of secondary data to give contextual and empirical support to this study. The received data are processed by descriptive statistical methods and inferential ones, such as cross-tabulation, correlation analysis, and regression analysis, to evaluate the customer

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spending tendency with the adoption of cashless payments, whereas hypothesis testing is used to evaluate the significance of relationships between the adoption of digital payments, influencing factors, and customer spending results.

Result and Discussion

Data analysis aims at testing the hypothesised association between adoption of cashless mode of payment and consumer spending behaviour in India. Primary survey data of 300 respondents was employed using inferential statistical techniques. According to the requirement, the descriptive statistics (mean, standard deviation etc) are omitted, and an accent is put on testing the hypothesis through correlation and regression analysis. The level of significant was predetermined at 5 per cent ($\alpha = 0.05$).

Table 1 Descriptive

Variable	N	Mean	Standard Deviation
Cashless Payment Usage Index	300	3.87	0.71
Consumer Spending Behaviour Index	300	4.02	0.68

With a mean score of 3.87 of Cashless Payment Usage Index, it can be seen that new modes of digital payments are relatively high among the consumers. In the same manner, the Consumer Spending Behaviour Index has got a mean of 4.02 which indicates that there is a greater propensity to spend more in a cashless transactional kind of market. The standard deviation values are low, which gives a sense of consistency in terms of the responses and showing response consistency in terms of usage, and spending.

Hypothesis: Adoption of cashless payment modes does not have a significant impact on consumer spending behaviour in India.

To test the above hypothesis, regression analysis have been applied among the variables adoption of cashless payment and spending behaviour of the consumers

Table 2 Relationship Between Cashless Payment Usage and Consumer Spending

Variables	Pearson Correlation (r)	p-value
Cashless Payment Usage and Consumer Spending	0.641	0.000

The $r = 0.641$ implies that cashless payment usage is strongly related to consumer spending behaviour in a strong positive way. The p-value (0.000) is lower than level of significant value which is 0.05 and that will prove that the relationship is significant. This finding implies that the greater the consumption of cashless payment modes, the greater the consumer spending.

Table 3 Impact of Cashless Payment Usage on Consumer Spending

Model Variables	B	t-value	p-value
Constant	1.106	4.12	0.000
Cashless Payment Usage	0.612	12.48	0.000
Model Summary	Value		
R ²	0.411		
Adjusted R ²	0.409		
F-value	155.8		
Sig. (F)	0.000		

The regression findings show that cashless payment use has statistically significant yet positive effect to consumer spending behaviour. The beta coefficient ($b = 0.612$) suggests that an increase of one unit in the cashless payment adoption would result in an increase of consumer spending of the unit 0.612. R² is 0.411 which means that the effect of the usage of cashless payments on spending behaviour of consumer explains an approximation of 41.1 per cent of consumer spending behaviour variation. The significant p-value and high F-value attest the strength and the general worth of the regression model.

Table 4 Summary of Hypothesis

Hypothesis	Statistical Test Used	Test Statistic	p-value	Decision
H ₀ : Cashless payment adoption has no significant impact on consumer spending	Correlation & Regression	$r = 0.641$; $\beta = 0.612$	0.000	Rejected

The test hypothesis findings make it abundantly clear that the switching to having cashless payments has a strong impact on consumer spending behaviour in India. The high positive

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correlation and regression coefficients prove the fact that the high level of dependence on digital payment methods increases the level of spending. These conclusions allow confirming the assumption that the shift to cashless economy has not only payment preferences but also the overall consumption behaviour, which substantiates the contribution of digital payments as a trigger to the formation of the current trends in consumer spending.

Discussion

The study findings give clear empirical evidence of the argument that the growth of cashless payment system in India has a strong and positive impact on consumer spending behaviour. The descriptive statistics reveals a high degree of uptake of methods of digital payments and the proportionally high inclination of greater expenditure meaning that the cashless transactions have now become a normalization aspect of daily consumption as opposed to a fringe payment instrument. This points to the increased maturity of the digital payment ecosystem within India and conforms to previous findings that sustained usage and not, just, adoption is one of the key determinants of economic behaviour.

This conclusion is also supported by the findings of the hypothesis testing. The positive linkage which was established exists between the use of cashless payment and consumer spending proves that the higher the use of digital payment instruments, the higher the consumer spending levels are expected to be. The regression estimation indicates that cashless payment usage is an effectual predictor of consumer spending and a significant weight of the variation in spending behaviour is explained by the variable cashless payment usage. These results align with the previous empirical data, according to which the lower friction of transactions and payment ease and increased convenience in terms of digital payments promote an increase in purchase frequency and discretionary spending. Specifically, the findings and outcomes of the literature are consistent with the reports on higher consumption after the adoption of digital payment systems, which was forced or voluntary in the post-demonetisation phase in India.

The results can be discussed in terms of transparency of payments and psychological accounting applied in a behavioural perspective. Cashless transactions minimize the pain of paying that is there in the physical cash outflows, which make expenditures less felt and tangible. This could result in more liberal spending among consumers particularly in non-essential or impulse buying. Also, the cosmic convergence of the cashless flow with the

digital platform, loyalty programs, and immediate confirmation systems can support the good spending experiences that will empower the habitual practices and consumption monitoring.

Simultaneously, the results ought to be viewed with reservations. Although a rise of expenditure can be an indicator of economic stimulation and a rise in the efficiency of transactions, it is also a concern into the aspect of adopting excess and financial self-consciousness, especially among users who have low financial literacy or budgetary responsibility. The impact of positive spending that has been experienced in this work does not necessarily translate to better consumer welfare in all segments. Past studies have warned that cashless payment would worsen the existing inequalities and create the financial risk of placing some consumers in the precarious circumstances when there are no proper precautionary measures, trust culture and redressing of grievances. Thus, the relationship between the adoption of the cashless and consumer spending should be viewed in a wider institutional and regulatory context to regulate convenience and consumer protection.

On balance, the discussion highlights that it is true that the cashless economy in India is not only changing the way of paying but also changing the nature of consumer spending behaviour. The research paper can be added to the literature to provide empirical evidence on the connection between the use of digital payment and the result of spending and emphasize how policymakers, financial intermediaries, and platform suppliers should encourage responsible use with their further growth of cashless payment systems.

Conclusions

The research comes up with a conclusion that the use of cashless payment systems has a strong and positive effect on consumer spending behaviour in India. Indeed descriptive and inferential analyses have provided empirical support that the higher the usage of digital forms of payments the higher level of consumer spending which signifies lower transaction friction, improved convenience and increased the ease of purchasing products. The test of the null hypothesis being rejected also confirms that the move towards a cashless economy is not only rooted in changes in the preference to pay but it actually affects the consumption pattern. Such results verify the view that has been held by other scholars that digital payment uptake could change behavioural responses with regards to the number and intensity of spending. Simultaneously, the findings reveal that the cashless payments have become so entrenched in the basic economic life that they may impose a structural shift in the manner in which the Indian consumers interact with the markets.

Recommendations

It is true that, in accordance with the findings, policy-makers and financial institutions should engage in further efforts to legitimize the ecosystem of the digital payments without, at the same time, forgetting about responsible consumption. The relevant regulatory bodies need to make consumer protection systems stronger with clear grievance redressal systems and protection against excessive spending and fraud. Digital payment promotion should be linked with the financial literacy programs to assist the consumers to maintain spending discipline in a payment-free world. Further, the user interface and characteristics provided by payment service providers must facilitate the budget control, and expenditures costs monitoring in order to allow consumers to enjoy the benefit of a cashless transaction without affecting the financial health. Future studies can extend to examine the long-term welfare of the adoption on cashless payment in India and its sectoral impact on expenditure.

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