

LITERATURE REVIEW ON RELATIONSHIP BETWEEN TYPES OF PURCHASES AND USAGE OF DIGITAL PAYMENT METHODS

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ABSTRACT

Today's consumer has varied choices of digital payment methods in different point-of-sale locations. It becomes pertinent to have a profound understanding of users' behavior towards digital payment methods relating to the types of purchases. This study highlights the association between the choice of digital payment methods 89+98 and the types of purchases. The literature review analyses the databases for literature of nationally and internationally reputed journals spanned from 2015 to 2022. It focuses on describing types of purchases and its effect and significance of the COVID-19 on usage of varied digital payment methods and evolution of a new theory of payment behavior. The findings of this meticulous literature review presented a deep understanding of this under-examined dimension of usage of digital payment methods. It will further facilitate providing users with a more conducive digital ecosystem which finally leads India towards a cashless economy. Further this study may offer a framework for the research scholars in this emerging research area.

Keywords: Digital Payment Methods, Type of Purchases, Cashless Economy and Payment Behavior.

INTRODUCTION

Over the past few years, the Reserve Bank of India (RBI) and the Government of India (GOI) has taken aggressive initiatives towards realizing the distant dream of a Faceless, Paperless, and Cashless economy. The launch of 'Digital India Programme' in July 2015 was the key step towards this endeavour. This followed by the introduction of Reliance Jio Infocomm. Ltd. and demonetization in September and November 2016 respectively proved to be significant events that facilitated the impetus of the cashless economy in India. Demonetization had not only facilitated the adoption but also changed the mind-sets of users towards the use of digital payments Kumar & Chaubey (2017), Sobti (2019) and Mani, & Iyer (2022).

A report by Statista indicated that the transaction value of digital payment methods is expected to be US\$81,197 million with 553.7 million users at the end of 2020 which is further expected to grow by US\$134,588 million with 697.8 million users in 2023. As India is progressing towards a cashless economy, it becomes essential to understand the needs of the ultimate user of the digital payment methods as the user is one of the vital players in the entire digital payment ecosystem. This study attempted to understand how the usage of digital payment methods varies across the types of purchases. The type of purchase is directly associated with the POS (Point of Sale) or payment location as an influential element towards the use of a specific payment method Jonker et al. (2017). The relationship between usages of diverse digital payment methods vis-à-vis different types of purchases will provide insights into user payment behavior.

UNDERSTANDING ‘TYPES OF PURCHASES’ IN DIGITAL PAYMENT LANDSCAPE

The term ‘type of purchase’ in the digital payment ecosystem is described by researchers involved in payment surveys from different countries as the external factors which impact digital payment methods used with the “*types of product or service bought and place where the purchase is made.*” Successively, also illustrated the eight essential types of purchases on which they conducted their empirical researches Bounie & François (2006); Eschelbach (2017) and Stavins (2017) Table 1.

Table 1	
TYPES OF PURCHASES	
S. No.	Types of Purchases
1.	Utility bills (Electricity, water, DTH and telecom bills etc.)
2.	Academic fee
3.	Online shopping
4.	Supermarkets/Departmental Store/Convenience Shops
5.	Restaurants/Hotels/Bars
6.	Ticket booking (Railway/Movie/Event)
7.	Petrol Pump
8.	Medical Services (Hospitals, Chemist shops, Medical tests, etc.)

The eight essential categories types of purchases presented in table 1.

In India, specifically the various digital payment methods have been devised to cater to the needs of all the strata of the society so every citizen of the country conveniently uses them in their routine life instead of cash. For the present study, six digital payment methods (debit card, credit card, mobile banking, Internet banking, mobile wallets, and UPI) are considered on the basis of their suitability in the urban areas Khurana et al. (2019).

METHODOLOGY

The phenomenon of the digital payment landscape is still-evolving and every development in it leads to a new research area to explore Mani & Iyer (2022). It was found during the literature survey that a few researchers have contributed towards this subject by their extensive work. Thus, the main objective of this review was to investigate the existing literature on types of purchases and the use of digital payment methods to create a framework for understanding this evolving phenomenon from 2015 to 2021. For the attainment of the above mentioned objective, the literature review was prudently examined from reports published by banks, research agencies and reputed publishers Elsevier, Emerald Insight, Springer Link, Taylor & Francis, Sage Journals and Google Scholar.

LITERATURE REVIEW

In the beginning, the increased use of digital payment methods led to the progression to comparative studies of cash between digital payment methods and further to examine how the consumer actually uses the varied digital payment methods. As a result, a new theory of users’ payment behavior evolved. An extensive study to discover consumer payment behavior in Germany was conducted (Crujisen, Hernandez & Jonker, 2015). The data of more than 2000 respondents collected through the questionnaire and the payment diaries. The study highlighted that the slow acceptance of alternate payment methods, however, the downward trend in cash

usage was recorded. It was found that 65% of cash used at retail outlets, 70% at restaurants, contrasting to gas filling stations, e-commerce, hotels/guesthouses, and household services, the predilection towards electronic payment methods. Thus, the results concluded that the usage of alternative payment methods was directly associated with the respective type of purchase or location of payment. This further ascertained by a cross-country comparison study on understanding the relationship between types of purchases and use of digital payment methods was conducted by Bagnall et al. (2014) using harmonized diary surveys. The study evaluated consumers' cash usage across seven countries, namely Canada, Australia, Austria, France, Germany and the Netherlands, and the United States. The results of harmonized diary surveys of the countries presented variation in the cash usage levels and the use of cash prevails across the seven countries; particularly for lowered-value purchases. The authors elucidated the significant impact of purchase locations subject to availability and acceptance of card payment systems for different product categories. The acceptance of card payments showed common patterns at gas stations; on the other hand, cash payments dominated at bars and fast food joints, and except for in the United States. The rest of the other countries had higher use of cash observed at grocery stores. The payment behavior was further examined by (Crujisen & Horst, 2016) in their study based on the influence of socio-psychological characteristics on payment behavior in the Netherlands. The authors developed a theoretical framework to examine payment behavior derived from previous literature. The framework elucidated that attitude towards payment methods formed on perceived safety and level of approval of payment methods. It concluded that socio-psychological factors governed by point-of-sale and value of the transaction.

A longitudinal study evaluated the trends of consumer payment behavior in the Netherlands was conducted by Jonker et al. (2017). It spanned from 2010 to 2016 using payment diaries and collected 119,117 data from Dutch customers. The study revealed that there was a steady shift in payments from cash to debit cards. The author showed the ascendancy of debit cards at the hypermarkets, fashion retailing, petrol pumps and home décor products purchased by debit cards. It was also found that the usage of cash usage was comparatively higher at street vending machines, entertainment, food, alcohol stores, and service providers.

A study demonstrated that online retailing played a catalyst in usage of digital payment methods as the notable proliferation of online buying was observed from 2015-17 to 10% to 12% and card payments recorded 81% of overall online buying. Most of the bill payments were done with cards and digital methods. The high usage of cash, debit, and credit cards by United States consumers to make payment Greene et al. (2017). The different trends in payment behavior were observed by Kumar & O'Brien (2018) in Atlanta, U.S. The study collected data of 2873 respondents revealed a downward trend of cash from last year (2017) with 26% transactions 12% cash usage. The study verified that debit and credit card as the highly used method with a 2% hike from previous year. It was also highlighted that cash usage and alternate payment methods differ from eight types of purchases included gifts, transportation, education, medicine, entertainment, food and personal care and house related products. The use of cash was dominant in the first 5 categories of products whereas debit cards followed by electronic payments in the remaining product categories. The similar conclusion was drawn by Foster (2019) in their study assessed various aspects of consumer payment choices of 3,372 participants from Atlanta, U.S. The study showed that cash, debit, and credit cards were the most commonly used means of payments. The usage of debit cards was found to be dominant in payment of bills (31%), retail purchase (38%), and online purchases (42%). This established that the users categorise the use of digital payment methods based on the type of purchases.

The pace of users' digital payment acceptance across the globe may vary but the

characteristics of payment behavior remains the same. The characteristics of payment behavior were explored by Świecka & Grima (2019) in their study. It aimed to understand factors impacting payment method preference of consumer-based in Poland. Computer-aided personal interviews (CAPI) were conducted on 1005 users. The results indicated that the choice of payment methods significantly impacted by transaction characteristics, transaction size (value), the type of product/service purchased, store type, and place of purchase. A pioneer study conducted by Tagat et al. (2019) in India, determined the similar elements impacting users' payment choices using payment diary data in the Mumbai Metropolitan Region (MMR). The authors pragmatically deployed the diary data method of data collection which is prevalent in the United States, Canada, Australia, and European countries. The experiential results indicated the dominance of cash payment for goods and services and significantly influenced by transaction size, merchants' acceptance of cashless payment methods and perceived usefulness of cash. Cash was found as a commonly used method followed by debit cards, cheques, and credit cards. It also concluded that the fewer chances of using cash with high transaction size were consistent with cross-country diary data surveys. Świecka et al. (2021) explored consumer behavior towards diverse payment methods in Poland. The CAPI method was used to collect the data of 1005 customers. It was analysed with a machine learning model to predict consumer payment preferences. The outcome exhibited usage of cash prevailed instead of the expansion of digital payment modes and payment preferences impacted by personality and financial literacy. The authors also analysed the higher percentage of cash used at local bazaars and salons on the other hand, increasing the trend of card payments at supermarkets, malls, and gas stations Van der Crujjsen et al. (2017).

The outbreak of COVID-19 in March 2020 has given new meanings and upsurge to digital payments. After demonetization the advent of COVID-19 pandemic accelerated the usage of digital payment popularly termed as contactless payments. This time the users' were voluntarily shifted from physical cash to digital payments for safety and hygiene reasons. The usage of digital payment methods has much wider scope in most of the categories of types of purchases such as groceries, medicines and other essentials as per reported by BIS and McKinsey 2022.

CONCLUSION

This study was an attempt to understand the users' payment behavior of different digital payment methods vis-à-vis types of purchases. Although the lack of literature in the Indian context was the limitation for this study still this meticulous review was able to create a framework from the pool of various studies conducted in countries. The names of these countries were the United States, European countries, and Australia, the assessment of payment methods used (penetration) vis-à-vis the types of purchases prevailed. However, in India, only one study conducted in Mumbai focused on understanding usage patterns employed in the payment diary method in the year 2019 by Tagat et al. (2019). As the usage of diverse digital payment methods are increasing, the new dimensions of association between types of purchases and use of digital payment methods developed. But this critical dimension of the digital payment ecosystem is underserved. It's high time to move to the next level to explore how the users are actually using this alternative way of payments. More qualitative as well as quantitative research required to be conducted on this under-examined research area. This research certainly will offer valuable inputs to banks in formulating operational strategies for penetrating the use of digital payments through enhancing customer experience, trust, security, regulations for big Tech players and satisfaction of the various digital payment methods to pursue the RBI's Payment and Settlement Systems in India: Vision 2025.

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