

# Understanding Consumer Acceptance of M-Wallet Apps: The Role of Perceived Value, Perceived Credibility, and Technology Anxiety

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## ABSTRACT

The m-wallet apps market in India is an evolving industry. M-wallet app companies could use the consumer insights from this study to design suitable strategies to retain existing users and attract new customers. Earlier studies in m-wallet app adoption in India have been restricted to GPRS services only. This study is unique in extending use of the UTAUT model theoretical framework to understand the factors influencing customers using the evolved 4G technology in India. The research hypothesis, based on the extended UTAUT model, was empirically tested using structural equation modeling. There was a significant improvement in the overall explanatory power of the extended UTAUT model over the original UTAUT.

## KEYWORDS

Extended UTAUT, Frequency of Use, Gender Differences, India, M-Wallet Apps, Perceived Credibility, Perceived Value, Technology Anxiety

## 1. INTRODUCTION

India has always been a booming market for mobile space, as it enjoys one of the highest mobile penetration rates in the world (NewZoo, 2017). Equally, the Indian economy also has a high level of banking penetration. Although the banking services have remained traditional, the advent of mobile services has made a significant mark on the changing mindset of Indian banking customers (Shah, Roongta, Jain, & Kaushik, 2016). Within the gamut of mobile banking financial services, M-wallet payment solutions are thriving worldwide, including in India, as customers are switching over to smartphones and high-speed mobile internet (Karjaluoto, Shaikh, Saarijärvi, & Saraniemi, 2018). In February 2018 alone, mobile wallet app (henceforth M-wallet app) customers completed 310 million transactions, which is a threefold increase over the 99 million transactions in October 2016 (Reserve Bank of India, 2018).

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M-wallet usage has in part accelerated due to the Indian Government's demonetization policy in 2016. This resulted in a cash crunch and the subsequent necessity for alternative payment solutions such as M-wallets among bank customers. The Indian Government's policy to promote 'Digital India' has given a great impetus to customers to use alternate payment methods such as the M-wallet (Financial Express, 2018). A closer look at the Indian M-wallet app market reveals that one player (Paytm) is holding 42% of the market share, whereas the rest of the market is deeply fragmented in nature (RedSeerResearch, 2017). The M-wallet market in India is poised to grow to USD 4.4 billion by 2022 (Capgemini & RBS, 2015) and to USD 1 trillion by 2033 (Credit Suisse, 2018). These statistics and projections show record growth in the M-wallet industry. However, considering India's population and the vast proportion of mobile users (300 million smartphone users) (Live Mint, 2017; NewZoo, 2017; Nokia, 2018), the growth cannot be considered particularly significant or phenomenal. This may be due to various existing factors related to hesitation in consumer acceptance of M-wallet apps in the Indian context.

The evolution of electronic payment systems in an economy provides considerable social benefits (Humphrey, Kim, & Vale, 2001). However, a significant proportion of merchants and customers in India still prefer cash, because of its high convenience and perceived low risk (Bijapurkar, Shukla, & Mridusmita, 2014; Dahlberg, Guo, & Ondrus, 2015; Stavins, 2017). Although there are approximately 29.1 million credit cards and 890 million debit cards in the country, studies suggest that most of these cards (77% by value) are used for cash withdrawals from Automated Teller Machines (ATM) (Reserve Bank of India, 2017). Additionally, those who use M-wallets generally use them for lower value payments (Reserve Bank of India, 2018).

The literature highlights that, besides new payment innovations such as M-payments, M-wallets, there are other older payment systems such as credit cards and checks that are still available to customers (Stavins, 2017). This creates competition among payment systems, and therefore it is difficult for any payment mode to gain widespread acceptance (Dahlberg et al., 2015; Shin, 2009). Hence, customer willingness, customer preparedness and customer readiness characteristics such as motivation and ability are necessary for the acceptance of self-service technologies like M-wallet (Meuter, Bitner, Ostrom, & Brown, 2005). Customer readiness characteristics, including motivation and ability to trial a self-service technology, occur particularly when customers are assured of safety and security in operation (Shareef, Baabdullah, Dutta, Kumar, & Dwivedi, 2018). M-wallet app companies face a significant challenge to create credible brands that ensure adequate security and widespread acceptance amongst retailers and business establishments (Shah et al., 2016; Weichert, 2008). Developing customer credibility becomes equally difficult because private companies and non-bank establishments create and promote most M-wallet brands. As research shows, M-wallet system security has not been satisfactorily demonstrated to customers, which has prevented widespread adoption (Bijapurkar et al., 2014). Additionally, research suggests that, despite the presence of advanced technology, the rapid spread of innovative solutions is not automatic (Wessels & Drennan, 2010). Therefore, regardless of the fact that there is record growth in M-wallet usage in India (Capgemini & RBS, 2015; Shah et al., 2016), it is also evident that consumer acceptance of M-wallet apps is still not phenomenal when the millions of Indian mobile users are taken into account. This shows a need for an in-depth investigation of various dormant factors that might be significantly impacting consumer acceptance of M-wallet apps in India.

According to Nejad (2016), there are insufficient studies on consumer adoption of alternative financial services solutions such as M-wallet apps. Curran and Meuter (2005) assert that customer adoption of different banking channels is determined by a distinct set of factors that require further exploration. Given the dearth of research in this area, the motive of this study is to explore an additional set of consumer adoption factors responsible for the acceptance and usage of M-wallet apps in the Indian context. In this regard, the researchers sought to answer the overarching research question, "What key factors affect the customers' decision to adopt M-wallet apps?". Consequently, the research objectives for the current study were - To determine the relationship between the adoption factors,

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