

WHAT DRIVES MOBILE PAYMENT USE BEHAVIOUR? AN EMPIRICAL ANALYSIS WITH UTAUT2 MODEL

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Abstract

The Indian payment industry is going through a transformation phase because of technological advancement, the growing use of smartphones, mobile internet, and the progressive regulatory environment. In the future years, the Indian economy will also witness different ways of moving money through digital modes with the use of mobile phones. This phenomenon helps individuals worldwide to perform their daily activities and payment transactions through mobile phones with greater flexibility, convenience, and ease. Therefore, the purpose of this study is to assess the primary factors affecting user behaviour toward mobile payment use amongst consumers in two cities of Gujarat with the application of the Unified Theory of Acceptance and Use of Technology (UTAUT2) theory. The research model and hypotheses were developed, and data was collected from 139 respondents from two cities in Gujarat through both online and in-person survey questionnaires. Following data gathering, data analysis and structural equation modelling were carried out. Finally, the study's findings revealed that effort expectation, habit, hedonic motivation, and facilitating or enabling conditions favourably influence the user behaviour of mobile payment users, however, the proposed relationship between performance expectancy, social influence, and price value with use behaviour was not established. In addition, the study also discusses implications from both management and theoretical perspectives.

Keywords: Mobile Payment, Structural Equation Modelling, Use Behaviour, UTAUT2

1. INTRODUCTION

Over the past few years, payment methods have changed and evolved to electronic money from metal, paper, and plastic money due to significant changes in the economy, information and communication technologies, and the growing usage of the internet, smartphones, and social media networks. This has opened new prospects for businesses whereas, consumers are gaining from using mobile phones more often in daily life (Flood et al., 2013; Goel & Nath, 2020; Liébana-Cabanillas et al., 2020; Petter et al., 2013; Su et al., 2018; Zhong & Nieminen, 2015). Consumers generally prefer to use technology or system that provides their services on a unified platform with speed, convenience, and user-friendliness. Mobile payment services, in this sense, signify modern and innovative multitasking technology that incorporates such features and elements (Hemchand, 2016; Shin, 2009; Singh et al., 2020; Thakur & Srivastava, 2014a). This cutting-edge technology, along with the integration of service delivery, has had a greater influence on people's lives than any previous innovation in human history. As a result, mobile payment is becoming increasingly popular, accepted, and used around the world (Singh et al., 2020). Asian customers are at the forefront of mobile payment service uptake, and they are incredibly confident and enthused about employing mobile devices for e-transactions.

According to a study by Nielson, users in developing nations like India use mobile phones for performing a variety of financial services transactions apart from verbal interactions (Pal et al., 2019). Despite this, researchers have given relatively little attention to understanding customers' use behaviour intention, thus we propose to explore the elements influencing users' behaviour towards mobile payment use.

In India during the last few years, mobile payment usage has grown substantially owing to some significant factors such as high internet connection, data accessibility on mobile, a robust wireless network, a curiosity for novel and innovative technologies, government efforts through the financial inclusion and Digital India program (K. Kapoor et al., 2013; Liébana-Cabanillas et al., 2020; Madan & Yadav, 2016; Pal et al., 2018, 2020; Singh et al., 2020; Sinha et al., 2019). There have been several studies that have highlighted various factors such as cashback, incentives, discounts, and so on boost users' proclivity to utilise mobile payment systems and other online platforms (Liébana-Cabanillas et al., 2020; Pal et al., 2020; Singh et al., 2020; Singh & Sinha, 2020). Therefore, despite the rise in mobile payment acceptance, key relevant research questions are, whether adoption has increased consumer usage or what are the drivers that influence consumer user behaviour.

The current study examined several models extensively employed in the information systems domain to assess customer's behavioural intentions and use behaviour of consumers (Oliveira et al., 2016; Singh et al., 2020; Thakur & Srivastava, 2014a; P. Upadhyay & Chattopadhyay, 2015). However, UTAUT2 was chosen for this study as compared to other technology adoption models because it examines the wide range of novel technologies and provides a clear depiction to measure the relationship between various constructs and use behaviour intention (Rondan-Cataluña et al., 2015; E. Slade et al., 2015).

The researchers' investigations on how behaviour intention influences use behaviour in information systems found that behaviour intention should result in user behaviour (Baxi & Patel, 2021; Fishman et al., 2012). It is also suggested that willingness to use the system may be the main and primary factor for an individual's use behaviour and reflects the user's actual usage behaviour (Baxi & Patel, 2021; Shin, 2009; Venkatesh et al., 2003). Therefore, the study's main goal is to comprehend the major driving forces affecting users' mobile payment usage behaviours. The study's findings will help regulators, practitioners, academicians, and mobile payment service providers in analyzing user behaviour toward mobile payment services and technology in an expanding market like India.

The rest of the paper is structured as follows. Section two discusses the literature review; Section three discusses theoretical background and foundation; Section four discusses research objectives; Section five discusses the conceptual model and hypothesis development; Section six discusses research methodology; Section seven discusses the data analysis and study findings; and Section eight, nine, and ten present discussions, theoretical and practical implications, limitations, and scope for future studies.

2. LITERATURE REVIEW

Few past studies on mobile payments employed the TAM to UTAUT2 models to determine factors influencing users' behavioural intention for mobile payment use.

One research of Saudi bank customers conducted using the integrated model of UTAUT2 and IS success concluded that the important drivers that determine actual use behaviour are performance expectation, system quality, service quality, habit, enabling conditions, and hedonic motivations (Baabdullah et al., 2019). In Taiwan, a study was conducted to examine key variables affecting mobile banking usage with an application of UTAUT, and the result revealed that use behaviours are positively influenced by behavioural intention, self-efficacy, and facilitating conditions (Yu, 2012). Another study from the millennium in South Africa indicated that performance anticipation, facilitating conditions, habit, risk, and institution-based confidence are the main determinants of mobile banking applications acceptance and use in South Africa (Thusi & Maduku, 2020). In Pakistan, study found that user's intention and recommendation are influenced by hedonic motivation and perceived technology security amongst other variables of study (Rahi et al., 2018). Another study conducted in Iran revealed that performance expectancy and effort expectancy is key determinant affecting use behaviour intention with moderating effect of age (Warsame & Ileri, 2018). A study conducted in Mozambique, combining the UTAUT model with moderators of culture found that habit, enabling conditions, and behaviour intention are key influencer of mobile banking use behaviour. (Baptista & Oliveira, 2015). In Malaysia, with the application of UTAUT2 constructs, one researcher found that performance anticipation, effort expectation, hedonic motivation, and enabling conditions were the key influencing behavioural intention of users (Shaw, 2014a), whereas other researcher concluded that social influence is most used and tested construct to study users intention in the context of mobile payment (Tan & Ooi, 2018). In one of the cross cultural study of Lebanese and English consumers, researcher found that performance expectancy, price value, trust, privacy and security are key determinants for use behaviour intention (Merhi et al., 2019). Study in Tanzania also concluded that all UTAUT constructs, perceived trust risk are affecting individual attention to use mobile payment technology (Tossy, 2014). Similarly, other prior researches looked at this and came to the conclusion that risk, compatibility, social impact, perceived trust, utility, and performance expectancy or usability are key elements affecting the adoption and behavioural intention of mobile payment technologies or services. (K. K. Kapoor et al., 2015; Liébana-Cabanillas et al., 2014; Shaw, 2014b; Shin, 2009; E. Slade et al., 2015; E. L. Slade et al., 2014; Y. Yang et al., 2015).

In India, user's behavioural intention in the context of mobile payment use explained by many researchers. One study concluded that some key UTATU2 variables predicting m-wallet adoption were performance expectation, ease of use or effort expectation, and facilitating circumstances (Madan & Yadav, 2016), whereas other researchers found that usefulness, ease of use, social effect, enabling circumstances, personal innovativeness, adoption preparedness, and risk perceptions were main factors to identify mobile payment users' behavioural intention (Thakur & Srivastava, 2014b). Research conducted in one of the city of India revealed that

behavioural intention and innovation resistance directly influence usage of digital payment technology (Sivathanu, 2019). One study focused on TAM based model and discovered its importance in measuring customer's technology acceptance behaviour (Liébana-Cabanillas et al., 2020; P. Upadhyay & Chattopadhyay, 2015) and other research revealed that use behaviour and satisfaction are influenced by perceived utility and ease of use (Priya et al., 2018). Another researcher examined mobile payment use behaviour and discovered that performance expectation is one of the strongest predictor followed by effort expectancy whereas risk perception was key inhibitor (P. P. Patil et al., 2017). Similarly, one research conducted in India covering young respondents and found that usefulness, ease of use, value perceptions were influencing technology usage significantly (Dasgupta et al., 2011; Liébana-Cabanillas et al., 2020) and another study of bank customers validated that user's intent, risk perception, and benefits of use as key predictors for technology adoption and use intention (Thamarai et al., 2010). Furthermore, another Indian study discovered that trust, perceived utility, perceived risk, and satisfaction are important influencing variables for behavioural intention to use mobile payment services in India (Liébana-Cabanillas et al., 2020)

Based on our study of the literature, we discovered that various factors influence the behavioural intention to use mobile payment technologies or services; however, none of the researcher have examined the key determinants that directly impact use behaviour of consumers in mobile payment context. The current study adds to the body of knowledge and proposes a model for identifying the primary elements influencing the usage behaviour of mobile payment users.

3. THEORETICAL BACKGROUND

3.1 Conceptualising Mobile Payment

Mobile payments are integration of mobile device and services with payment systems to enable customer to start, approve and complete financial transaction using wireless mobile communication technologies and networks (Chandra et al., 2010; Y. Lu et al., 2011; E. Slade et al., 2015). Mobile payment also refers to the act of making payments for goods and services using mobile devices such as cellular phones, personal digital assistants, radio frequency devices, and near field communication-based devices (Chen & Nath, 2008; Thakur & Srivastava, 2014b). Mobile payment devices, independent of device or payment service provider, are registered with their banks, enabling for high-security transfers of payments from the sender's account to the receiver's bank account with a few key clicks on the mobile device (Ng & Yip, 2010; Thakur & Srivastava, 2014b). In other words, m-payment is "fund transfer system against purchase of product or service, where the mobile device (both smart phone or basic phone) is used from initiation till payment completion (Fatima et al., 2021).

3.2 Theoretical Foundation

The study of the factors influencing technology adoption and utilisation is central to information system research. Various theories have been suggested in the literature to analyse the acceptability and usage of technology. The well-known theoretical frameworks that were

used to explain adoption behaviour at the individual level were the “Theory of Reasoned Action” (Fishbein & Ajzen, 1975), the “Theory of Planned Behaviour” (Ajzen, 1991), and the “Technology Acceptance Model” (Davis, 1989). According to TRA and TPB, adoption behaviour is driven by behavioural intentions, which are impacted by an individual's attitude and external influences. TPB is described as an extension of TRA for behaviours that are not completely under voluntary control. TAM is an adaptation of the TRA in the field of information systems. TAM applied TRA theory to explain why people adopt and use information technology. The two aspects that determine how people feel about utilising information system or technology in TAM are perceived utility (PU) and perceived ease of use (PEOU). These two ideas foster a positive behavioural intention (BI) toward using the IT, which in turn influences how it is used. In the expanded technology acceptance model i.e., “TAM2” (Venkatesh & Davis, 2000) subjective norms are a further factor influencing use intention.

The “Unified Theory of Acceptance and Use of Technology” (Venkatesh et al., 2003) model has been used to evaluate technology acceptance and use in various baseline framework (Fidani & Idri, 2012; Maldonado et al., 2011). It was derived via examination of at least eight models used in study of technology acceptance and use intention: “Innovation Diffusion Theory” i.e. “IDT” (Rogers, 1961); “Theory of Reasoned Action” i.e. “TRA” (Ajzen & Fishbein, 1980); “Theory of Planned Behavior” i.e. “TPB” (Ajzen, 1991); “Social Cognitive Theory” i.e. “SCT” (Bandura, 1986) ; “Technology Acceptance Model” i.e. “TAM” (Davis, 1989); “Model of PC Utilization” i.e. “MPCU” (Thompson et al., 1991); “Motivational Model” i.e. “MM” (Davis et al., 1992); “Combined TAM-TPB” i.e. “C-TAM” (Taylor & Todd, 1995b).

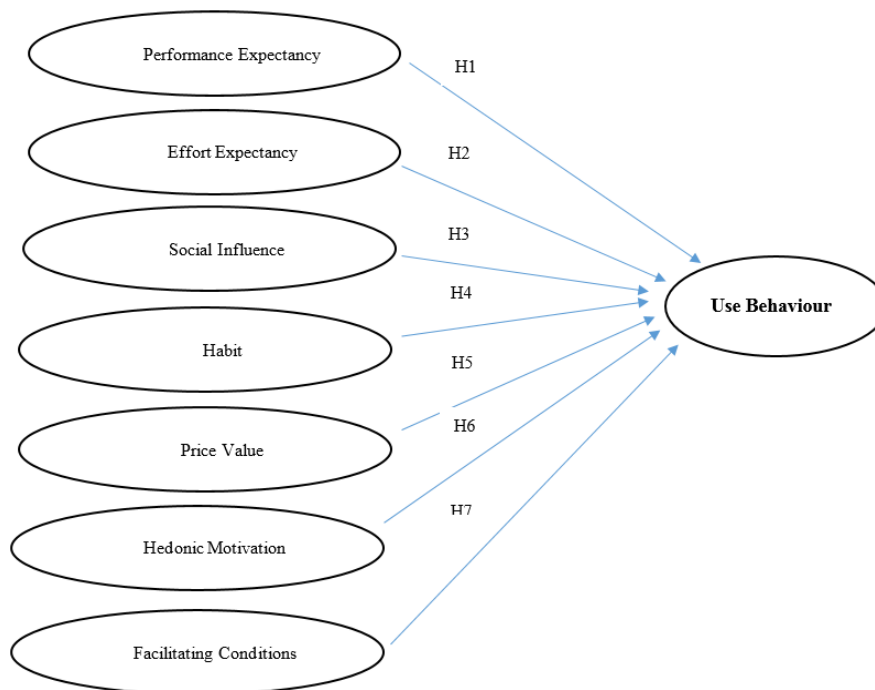
A primary significance of “UTAUT” model is coming through collection of constructs or variables from past studies pertaining to usage of technology and capturing key implications or effects on technology usage from the standpoint of each individual user’s intention. (Yu, 2012). The “UTAUT” was designed for employee acceptability and utilisation. It also focuses on the key determinants that influence behaviour intent for technology acceptance at workplace. The “UTAUT” model was built on four key constructs: “Performance Expectancy”, “Effort Expectancy”, “Social Influence”, and “Facilitating Conditions” with four key moderating variables i.e., “gender, age, experience, and voluntariness of use” which act as key influencing factors for use behaviour intention and actual use behaviour (Venkatesh et al., 2003)

UTAUT has served theoretical background and applied either part or complete model in both organisational and non-organisational contexts. (B. Gupta et al., 2008; Van Raaij & Schepers, 2008; Venkatesh & Zhang, 2010). Building on previous research on UTAUT and to overcome its limitation, researcher has developed “UTAUT2” model to explain the technology adoption and use in a consumer context. As a conclusion, new constructs and relationships were added to the model, and one construct was eliminated from the original model (Venkatesh et al., 2012a).

The “UTAUT2” framework incorporates seven variables i.e., four constructs (“performance expectancy”, “effort expectancy”, “social influence” and “facilitating conditions”) from the

“UTAUT” model and three new constructs (“hedonic motivation”, “price value” and “habit”) to check influence on behavioural intention and use behavior (see Figure 1). Furthermore, three individual differences (age, gender, and experience) added to check moderation effect. This extension proposed in UTAUT2 produced improvement in estimating user adoption and variance explained in technology use up to 74 % (Venkatesh et al., 2016). According to extensive literature, the model is giving us a more solid framework with innovative approaches and beneficial for research in the areas of new technology acceptance and understanding user's use behaviour intention (Šumak & Šorgo, 2016). Hence, the purpose of the current study is applying the “UTAUT2” model and determine what drives use behaviour amongst of mobile payment users.

Figure 1: The Proposed Research Model



4. RESEARCH OBJECTIVES

The study's primary focus is on mobile payment use behaviour and its key objectives are as follows:

- To build a theoretical model to understand use behaviour of mobile payment users.
- To examine the influence of “UTAUT2” variables i.e., “performance expectancy”, “effort expectancy”, “social influence”, “facilitating conditions”, “hedonic motivation”, “habit”, and “price value” on use behaviour of mobile payment users
- To empirically test and validate the theoretical framework.

5. CONCEPTUAL FRAMEWORK AND HYPOTHESIS

The proposed conceptual model used in this study is shown in Figure 1. It shows constructs used in UTATU2 model with relationship as suggested in the study. The UTAUT2 model covers seven constructs as key factors determining its influence on behavioural intent and actual use behaviour. In the current study, “performance expectancy”, “effort expectancy”, “social influence”, “facilitating condition”, “hedonic motivation”, “habit” & “price value” are used as independent variables whereas “use behaviour” as dependent variable. Moderation impact of demographic difference like “age”, “gender” and “experience” used in original model not used in this study primarily because first order correlation of these moderators not proved (Venkatesh et al., 2012a) and few past studies have found that there is no significant impact of said moderators on behavioural intent and actual use behaviour of technology (Martins et al., 2014a; Riffai et al., 2012). In the coming section, each construct of proposed model is defined, and hypothesis specified.

5.1 Use Behaviour

Behavioural intentions are a person's intention to engage and carry out specific behaviours (Fishbein & Ajzen, 1975). The concept was developed under the TPB theory, and it implies that the most effective predictor of behaviour is behavioural intention. Previous research has also substantiated relationship between behavioural intent and actual behaviour (Al-Maghrabi & Dennis, 2011; Hubert et al., 2017; Venkatesh et al., 2012a; Yiu et al., 2007). As a result, measuring intent provide a precise picture of customer behaviour. In addition to this, there is a lot of evidence from earlier research to suggest that users and non-users of any technology have distinct perceptions about effectiveness and risk perception of that technology, which affects their desire to use it in the future. (McCole & Ramsey, 2005; Ozdemir et al., 2008). Thus, this study focuses on measuring main factors affecting user behaviour for mobile payment's users.

5.2 Performance Expectancy

“Performance expectancy” describes as degree to which consumer benefit from performing certain activities by using or applying certain technology (Venkatesh et al., 2012a). Performance expectancy is comparable with concept used in other behavioural models such as “perceived usefulness” and “relative advantage” in “Technology Adoption Model” and “Innovation Diffusion Theory” respectively (Sair & Danish, 2018; Venkatesh et al., 2003). Performance expectancy in reference to mobile payment refers to how much consumers believe that certain mobile payment technology will help them perform a give mobile payment transaction. Generally, customers are more likely to accept and use new technology if they perceive that doing so would benefit them or improve their quality of life (Alalwan et al., 2016). Several studies covering the influence of “performance expectancy” on behavioural intention or use behaviour have been undertaken in various regions and domains, and researchers discovered that performance expectancy has been supported as a crucial driver (Amin et al., 2008; Dasgupta et al., 2011; Hongxia et al., 2011; Laukkanen, 2007; Luarn & Lin, 2005; Oliveira et al., 2014; Riquelme & Rios, 2010; E. Slade et al., 2015; Thakur, 2013; Wang & Yi, 2012). Thus, based on findings from prior research, the study hypothesises and proposed:

H1. Performance expectancy influences the use behaviour of mobile payment users.

5.3 Effort Expectancy

“Effort expectancy” is described as the level of ease and comfort felt by customers while using technology, as well as its influence on usage behaviour and intention to utilise any technology (Venkatesh et al., 2012a, 2003). The term "effort expectancy" in the reference to mobile payments refers to how much customers believe that utilising mobile payment systems is simple to understand and requires little effort. Users also feel connected with technology which is simple to use and user-friendly (Alalwan et al., 2017) and it increases their expectation towards getting desired performance, confirming significant positive association between effort expectancy and behaviour intent to use (Hongxia et al., 2011; Koksal, 2016; Martins et al., 2014a; Mohammadi, 2015; Thakur, 2013; Venkatesh et al., 2003; Venkatesh & Davis, 2000; T. Zhou et al., 2010) Ease of accessing technology easily tends to motivate users and helps predict users' intentions to adopt and use technology accurately (Dwivedi et al., 2017; Miltgen et al., 2013; Oliveira et al., 2014; Thakur, 2013; Wang & Yi, 2012). In another studies, after using UTAUT theory, effort expectation was discovered to be playing essential impact among usage level of users. (Oliveira et al., 2014; Yu, 2012; T. Zhou et al., 2010). Therefore, when a technology service is automatically updated, users should not find it tough or complicated to utilize certain technology or its service; otherwise, utilisation would drastically decline (Liébana-Cabanillas et al., 2017; Yiu et al., 2007; Yu, 2012). It is obvious that if less effort is necessary, the customer will be more inclined to use any type of technology. Thus, based on findings from prior research, the study hypothesises and proposed:

H2. Effort expectancy influences the use behaviour of mobile payment users.

5.4 Social Influence

Social influence is defined as subjective norms in the “Theories of Reasoned Action” and “Theory of Planned Behaviour”, which serves as theoretical foundations of social influence. It demonstrates how external influences, such as the opinions of the consumer's friends, colleagues or superiors, family members, media and social media, affect their intentions or use behaviour.(Thusi & Maduku, 2020; Venkatesh et al., 2012a). Users' viewpoints and beliefs frequently alter significantly because of social norms and values, including those of other technology users (Alsheikh & Bojei, 2014). This is especially true and relevant when current users of a particular technology are influenced by other’s who switch from one technological service to another in their social circle (Baabdullah et al., 2019; Baptista & Oliveira, 2015; Dwivedi et al., 2017). The term “social influence” regarding mobile payment refers to the extent to which customers believe that people who are influencing them in their circle believe that they should use a specific technology or system. The fundamental premise behind this is that people consult their social networks to relieve any anxiety caused by new technological uncertainties. In an age where social networking sites and word-of-mouth control the cyber world, the impacts of social influence may either continue or increase the usage of a certain technological service or steer consumers towards a socially acceptable new technology (Al-Somali et al., 2009; Dwivedi et al., 2018; K. K. Kapoor et al., 2018; Roy et al., 2018; Williams

et al., 2015). When consumers establish the perception that using technology would help them advance their social standing and image among their peer groups, they create a favourable perception of it (Venkatesh & Davis, 2000; Venkatesh & Morris, 2000). In both UTAUT and UTAUT2, social influence has been tested in mobile payment context and its positive effect on behavioural intention or user behaviour found significantly. (Akturan & Tezcan, 2012; Hongxia et al., 2011; Martins et al., 2014b; Tan et al., 2014; Venkatesh & Zhang, 2010; Q. Yang et al., 2015). Thus, based on findings from prior research, the study hypothesises and proposed:

H3. Social influence influences the use behaviour of mobile payment users.

5.5 Habit

“Habit” is described as extent to which individual choose to engage in behaviours by themselves. It is tendency to use technology intuitively based on the prior experiences and gained learnings (Venkatesh et al., 2012a). Habit is also discussed as well learned actions initiated by social influence and then repeated without conscious intention, which results into habit with use of technology over a period (Bandyopadhyay & Fraccastoro, 2007). It has also been discovered that habit is the greatest predictor of use behaviour intention among all predictors, including performance expectation. (E. Slade et al., 2015; Venkatesh et al., 2012a). However, habit can be formed only after use of technology and it is impossible to form habit for non-users. Prior study has also shown that habit is the most powerful influencer on behaviour intention and use behaviour in the context of mobile payment and other technologies (Baptista & Oliveira, 2015; Dahlberg & Oorni, 2007, 2007; S. S. Kim et al., 2005; Lim et al., 2007; Limayem et al., 2007; Venkatesh et al., 2012b). As a result, understanding the concept of habit is critical to improve the usage of technology. (Baabdullah et al., 2019; Changchit et al., 2017; S. Gupta, 2013; Huili & Zhong, 2011; Limayem et al., 2007). Thus, based on findings from prior research, the study hypothesises and proposed:

H4. Habit influences the use behaviour of mobile payment users.

5.6 Price Value

Price value has substantial impact under consumer context in which UTAUT2 was established because customer normally bear the monetary cost whereas employee do not in organisation context. In other words, habit is “consumers' cognitive trade-off between the perceived advantages of the applications and the monetary cost of utilising them”. In the context of mobile payments, this is discussed as perceived financial cost (E. Slade et al., 2015; Venkatesh et al., 2012a).. In other words, while using any technology or technology service users frequently evaluate cost they paid (installation, download and use of technology or application) and benefits they might get if they continue using technology (Alalwan, Rana, et al., 2015; Al-Sukkar, 2005; Baabdullah, 2020; Laukkanen & Lauronen, 2005). Customers are more likely to use technology when they believe the price is higher or if they are compensated with additional benefits (Laukkanen & Lauronen, 2005). However, consumers will switch or move to alternative usage option when price value is lower or monetary cost are higher than benefit (Laukkanen, 2007; Njenga & Ndlovu, 2012; Raleting & Nel, 2011). In the context of mobile payment, various studies have been conducted to understand impact of financial cost on user's

use behaviour intention (Hongxia et al., 2011; K. K. Kapoor et al., 2015; H.-P. Lu & Wung, 2021; Tan et al., 2014; S. Yang et al., 2012). It is also argued in other studies that, when perceived cost are low consumer are more likely to adopt, use and continue using technology. (Alalwan et al., 2017; Baptista & Oliveira, 2015; Y.-K. Lee et al., 2012). Thus, users not able to afford higher cost or charges for improved technology are unlikely to continue using service or technology. Thus, based on findings from prior research, the study hypothesises and proposed:

H5. Price value influences the use behaviour of mobile payment users.

5.7 Hedonic Motivation

The “hedonic motivation” construct has been introduced to the “UTAUT2” model to supplement performance expectancies in the consumer setting. In other words, author has combined both intrinsic values such as pleasure, fun, playfulness, entrainment, and enjoyment with extrinsic values such as efficiency, usefulness, and performance expectation in their model (Venkatesh et al., 2012a). These intrinsic utilities are driving factors for an individual in technology adoption especially for the systems which are emerging and creative. Hedonic motivation with reference to mobile payment described as the extent to which use of technology gives pleasure or enjoyment to users and found to be key predictor for technology adoption and use behaviour (Venkatesh et al., 2012a). When customers believe that the technology which they are using currently provides them ease, delight, happiness, amusement, pleasure, and satisfaction, they are more inclined to stick with it and are unlikely to switch to another alternative and competing technology (Alalwan, Rana, et al., 2015; Baabdullah, 2020; Koenig-Lewis et al., 2010; M.-C. Lee, 2009; Leong et al., 2013). Mobile payment is pleasurable and enjoyable for consumers since it enables a novel way of performing financial transactions, which leads to its acceptance. This is also supported by few studies conducted in past confirming significance influence of hedonic motivation in predicting use behaviour intent and use behaviour (Alalwan, Dwivedi, et al., 2015; Alalwan et al., 2018; G. S. Kim et al., 2008; Zhang et al., 2012). Thus, based on findings from prior research, the study hypothesises and proposed:

H6. Hedonic motivation influences the use behaviour of mobile payment users.

5.8 Facilitating Conditions

Facilitating condition concept is like “perceived behaviour control” construct of theory of planned behaviour, which represents extent to which individual believes he or she has a choice or control over a behaviour. The facilitating condition provides guidance, assistance, and training for the use of any technology, which includes technical support, software resources, hardware, and understanding on how to utilise that technology (Sivathanu, 2019; Taylor & Todd, 1995a, 1995c). In the context of mobile payment, facilitating condition is consumer’s perception and belief about availability of resources and technical support to enhance the use the system or perform behaviour (Martins et al., 2014b; Venkatesh et al., 2012a). To put it another way, facilitating conditions encourages consumers to improve their usage of technology and inspire them to keep using a certain system, service or technology (Baabdullah, 2020; Dwivedi

et al., 2017; K. C. Lee & Chung, 2009). Because of people's ability to use the internet and access mobile payment systems or apps through mobile, the "unified theory of acceptance and use of technology" claims that behavioural intention to technology use and its usage both are favourably impacted by enabling conditions. It also tends to enhance usage of technology due to its compatibility with user while using it. Research from the past confirms this, showing that facilitating conditions have a positive impact on use behaviour intent and use behaviour (Alalwan et al., 2017; Dwivedi et al., 2017, 2019; Kwateng et al., 2018; P. Patil et al., 2020; Rana et al., 2016; Sivathanu, 2019; Thakur, 2013; Yu, 2012; T. Zhou et al., 2010). Thus, based on findings from prior research, the study hypothesises and proposed:

H7. Facilitating condition influences the use behaviour of mobile payment users.

6. RESEARCH METHODOLOGY

6.1 Target Population

Target participants for the study was anyone who has completed 18 years of age and currently using mobile payment options. However, Human Development Index (HDI) and Education Index (EI) contributing to HDI considered while selecting target population for this study i.e., Ahmedabad & Gandhinagar district of Gujarat State. These two districts were selected for data target population basis HDI and EI report published in 2004 (Nations, 2004). Human Development Index (HDI) for the State of Gujarat, Ahmedabad and Gandhinagar districts were 0.565, 0.572 and 0.576 respectively as per this report. Similarly, Education Index (EI) contributing to HDI, for Ahmedabad & Gandhinagar districts were 0.761 and 0.756 as against 0.744 EI of Gujarat State.

6.2 Survey Instrument

For data collection purpose, questionnaire was developed comprising both demographic, general and research questions. Questionnaire was prepared for both online and offline surveys. There was total 47 questions in total including 13 demographic and general questions. Out of thirteen questions, five questions are demographic questions related to gender, age, occupation, and income for collecting personal information about respondents and rest eight questions were related to the transaction value, usage frequency, and type of usage and methods of mobile payment. All demographic questions were on nominal scale. The remaining 34 items were five-point Likert scale questions that prompted respondents to score their opinion over a range of responses (Dwivedi et al., 2006; Jamieson, 2004). These 34 item scales were developed to cover all eight constructs of conceptual model. These questions were designed to gather the data required to validate the hypotheses proposed for this study. And five-point on Likert scale comprising 1 (as "Strongly disagree"), 2 (as "Disagree"), 3 (as "Neither Agree nor Disagree"), 4, (as "Agree") and 5 (as "Strongly Agree"). All constructs covered in the study comprised varying from 3 to 6 items, forming overall 41 questions. Table – 5 displays all scale items developed with their respective attributes.

6.3 Measurement Development

Based on the development of a conceptual model, this study contained eight constructs: performance expectancy, effort expectancy, social influence, enabling condition, hedonic motivation, price value, habit, and use behaviour. Scale for these constructs were adopted from existing literature. Thus, scale item adopted for performance expectancy and social influence from (Venkatesh et al., 2012a) whereas scale items of effort expectancy, habit, price value, hedonic motivation and use behaviour constructs were adopted from (P. Patil et al., 2020) and (Venkatesh et al., 2012a). Attributes for the same are mentioned in Appendix A.

6.4 Pilot Study and Expert Validation

To validate the questionnaire, a two-step method consisting of expert assessment and a pilot study was used. To begin, professionals from the technological domain in BFSI sector and academic fields were approached to assess effectiveness of the survey questionnaire. Later, a pilot study of 20 respondents carried out after completing the survey instrument design to rectify any problems. The respondents were asked to select most difficult aspect of completing questionnaire, ease of understanding and clarity of questions. Following careful consideration of respondent's feedback and suggestions from experts', minor changes were made to wording, formation, sequence and order of different scales and questionnaire amended suitably.

6.5 Data Collection

The current study used a non-probabilistic convenience sampling method for data collection, which is consistent with prior studies, since it is easy, effective, and affordable, and it facilitates in high-quality data gathering with control over the kind of respondents (Chatzigeorgiou et al., 2019; P. Patil et al., 2020; Sharma et al., 2021; N. Upadhyay et al., 2022; Yao et al., 2015). Then, the study's data was gathered through both face-to-face interaction and an online form survey. Data collection was carried out from Ahmedabad and Gandhinagar districts of Gujarat State in the between 11th October, 2022 to 25th October, 2022. After initiating survey, a total of 175 questionnaires were shared to respondents and total 150 responses were returned from consumers with filled answers. These forms were evaluated and only 139 usable samples were considered for further analysis. The remaining forms were rejected due to missing values and insufficient information.

7. DATA ANALYSIS

The proposed conceptual model for this study was empirically tested with application of structural equation modelling (SEM). Structural equation modelling is a method for assessing causal relationships that uses both statistical data and qualitative causal hypotheses (Oliveira et al., 2016). Previous research has emphasised the significance of structural equation modelling in separating measurement models and structural models and controlling survey instrument errors. AMOS version 20 was used for SEM since it gives many indications of dependent variables (Schierz et al., 2010). Confirmatory factor analysis was carried out using the statistical programme SPSS 20.0 to examine and assure high reliability and validity of the constructs as well as the efficacy of the questions selected for the questionnaire.

7.1 Sample Characteristics Analysis

Table 1 shows the characteristics of sample used in this study (n = 139). Gender wise, 40 respondents were female whereas 99 respondents were male. Overall, all the participants were between 18 and 59 years of age except one who was above 60 years of age. Age wise, 51.79 % respondents were from 24-29 years age group followed by 23.02 % respondents from 30-35 years, 9.35% respondents from 18-23 years, 7.91 % respondents from 36-41 years, 4.31% respondents from 42-47 years, 1.73 % respondents from 54-59 years, 1.43 % respondents from 48-53 years and 0.71 % respondents above 60 years. Similarly, most of the respondents participated in survey were educated and education characteristics of respondents reveals that 59% and 41 % of the respondents were graduates and postgraduates respectively. Occupation wise, 87.76% respondents were working with private sector service, 1.43 % of respondents were working with government service, 4.31 % of respondents had their own business, 4.31 % of respondents were self-employed, 1.43 % of respondents were home maker and remaining 0.71% respondents were students. Yearly income of 78.41 % were less than 5 Lacs, 14.38% respondents were between 6 Lacs to 10 Lacs, 2.87 % respondents were between 11 Lacs to 15 Lacs, 0.71 % respondents were between 16 Lacs to 20 Lacs and rest 3.59 % respondents were in the income range above 21 Lacs.

Table 1: Demographic Characteristics of Samples

Variable	Frequency	Percentage (%)
Gender		
Male	99	71.22
Female	40	28.77
Age (Years)		
18-23	13	9.35
24-29	72	51.79
30-35	32	23.02
36-41	11	7.91
42-47	6	4.31
48-53	2	1.43
54-59	2	1.73
60 and above	1	0.71
Education		
Up-to schooling	0	0
Graduation	82	59
Post-Graduation/Masters	57	41
Ph.D.	0	0
Other	0	0
Occupation		
Students	1	0.71
Govt. Service	2	1.43
Private Service	122	87.76
Business	6	4.31
Self Employed	6	4.31
Home Maker	2	1.43
Unemployed	0	0

Yearly Income		
< 5 Lacs	109	78.41
6 Lacs – 10 lacs	20	14.38
11 Lacs -15 lacs	4	2.87
16 Lacs – 20 Lacs	1	0.71
>21 Lacs	5	3.59

7.2 Reliability and Validity

Composite reliability is widely used for the reliability assessment of constructs to evaluate internal consistency of construct (Hair et al., 2012). The convergent validity of construct explains that every construct used in study having greater variation with its own construct as compared to other constructs (Hair et al., 2011; Henseler et al., 2009) Reliability scale of constructs were evaluated with computation of Cronbach's alpha and acceptable cut off for alpha value should be above 0.7 (Nunnally & Bernstein, 1978). In this study, range of alpha value was between 0.86 and 0.96 which are above the cut off value. In addition, confirmatory factor analysis was also performed on performance expectancy, effort expectancy, social influence, hedonic motivation, facilitating conditions, habit, price value, and use behaviour to assess construct's validity. Convergent validity of the constructs was examined using composite reliability and average variance extracted through confirmatory factor analysis. Basis prior research, acceptable threshold for composite reliability should be more than 0.7 (Fornell & Larcker, 1981; Hair et al., 2011, 2012; Heinzl et al., 2011) Similarly, each scale's reliability must be considered, with every scale's absolute standardised loading greater than 0.5 (Fornell & Larcker, 1981; Gefen et al., 2000; Hair et al., 2011). And it is found in the study from Table 2 that composite reliability and standardised loading for all scales was significant and above 0.7 and 0.5 cut off respectively. Convergent validity should be investigated using average variance extracted (AVE), and the value of AVE should be higher than 0.5 to demonstrate a suitable degree of convergent validity (Fornell & Larcker, 1981; Hair et al., 2011; Henseler et al., 2009). As per table 3 AVE of each construct is above expected threshold and confirm convergent validity. The discriminant validity of a construct may be assessed through comparison of the square root of the AVE and the correlation of corresponding pairs of constructs, with the former being larger than the latter (Fornell & Larcker, 1981). This criterion was verified shown in Table 3 below to establish discriminant validity of constructs. As a result, we established quality and adequacy of measurement with validity of scales and constructs.

Table 3: Discriminant Validity

Construct	FC	UB	PE	EE	SI	HT	PV	HM
FC	0.737							
UB	0.717	0.897						
PE	0.444	0.437	0.845					
EE	0.61	0.525	0.773	0.855				
SI	0.324	0.232	0.318	0.316	0.875			
HT	0.656	0.713	0.554	0.458	0.511	0.737		
PV	0.746	0.501	0.449	0.49	0.388	0.582	0.851	
HM	0.568	0.515	0.266	0.331	0.474	0.675	0.529	0.817

Note: Factor correlation matrix with $\sqrt{\text{AVE}}$ on the diagonal, AVE, average variance extracted;

CR; composite reliability

Table 2: Reliability and Validity

Construct	Items	Standardized Loading	CR	AVE	Alpha
Performance Expectancy	PE1	0.888	0.93	0.71	0.92
	PE2	0.881			
	PE3	0.900			
	PE4	0.794			
	PE5	0.753			
Effort Expectancy	EE1	0.850	0.94	0.73	0.94
	EE2	0.880			
	EE3	0.739			
	EE4	0.844			
	EE5	0.902			
	EE6	0.902			
Social Influence	SI1	0.771	0.87	0.77	0.82
	SI2	0.968			
Facilitating Condition	FC1	0.749	0.83	0.54	0.83
	FC2	0.748			
	FC3	0.730			
	FC4	0.720			
Price Value	PV1	0.906	0.89	0.72	0.88
	PV2	0.748			
	PV3	0.889			
Hedonic Motivation	HM1	0.752	0.89	0.67	0.86
	HM2	0.849			
	HM3	0.842			
	HM4	0.821			
Habit	HT1	0.757	0.70	0.54	0.73
	HT2	0.716			
User Behaviour	UB1	0.897	0.96	0.80	0.96
	UB2	0.934			
	UB3	0.921			
	UB4	0.915			
	UB5	0.792			
	UB6	0.914			

Model fit indices - Model fit indices for measurement model is not carried out as it is pilot study, sample size small.

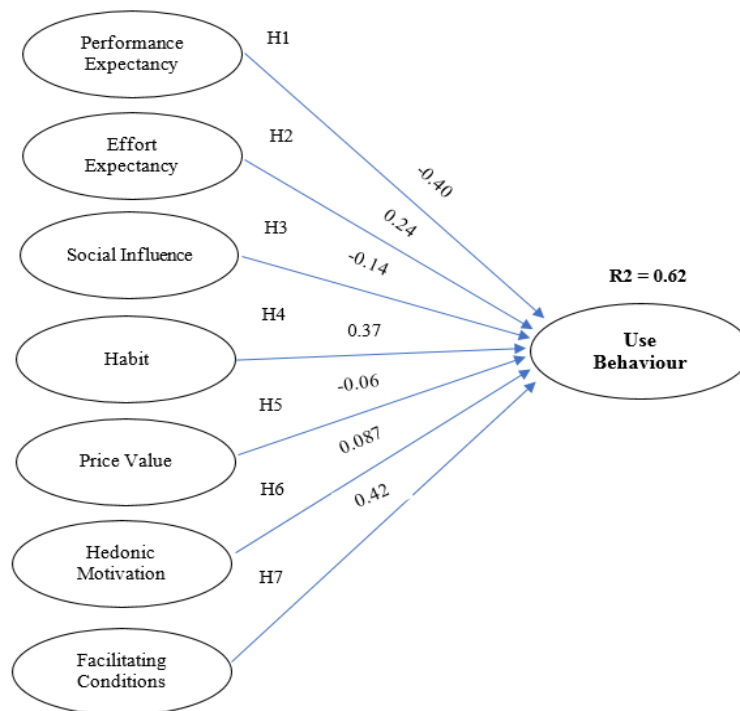
7.3 Structural Model Testing

The proposed hypothesis as shown in Figure 2 evaluated with AMOS to test structural model. Estimation of model was carried out with all UTAUT2 variables such as performance expectancy, effort expectancy, social influence, facilitating condition, hedonic motivation,

price value, and habit as independent variables and usage behaviour as dependent variable. Model fit indices were used to calculate standardised path coefficients, and the MLE approach was applied to estimate coefficients. The analysis demonstrates that structural model's overall goodness of fit achieved an acceptable statistical level ($\chi^2 / df = 13.197, p < 0.001, CFI = 0.83, TLI = 0.80, GFI = 0.75, AGFI = 0.70, \text{ and } RMSEA = 0.114$) and it means that hypothesised structural model is having moderate level of fit.

According to the R-square value or model's explanatory power, all UTAUT2 variables, namely performance expectancy, effort expectancy, social influence, enabling circumstance, hedonic incentive, price value, and habit, predict overall 62% variance in mobile payment user behaviour.

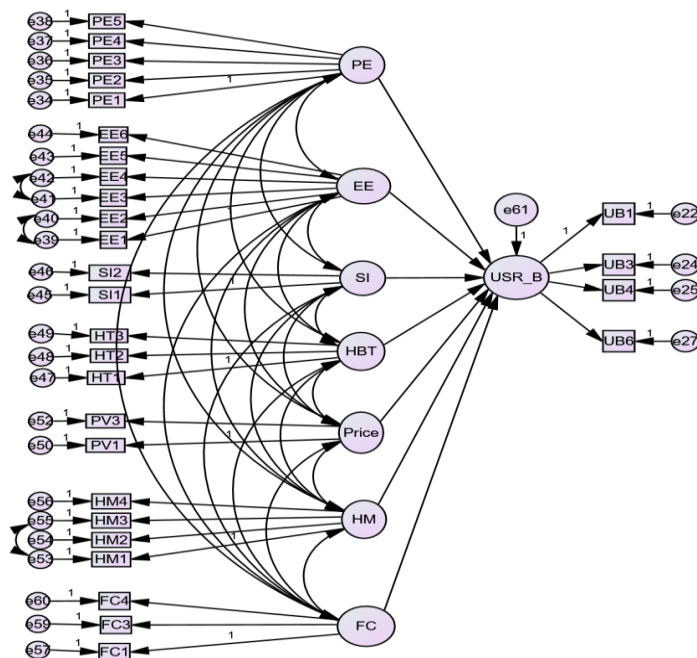
Figure 2: Structural Model



7.4 Hypothesis Testing

The path coefficients are obtained as per figure 3 with the use of bootstrapping, t values and P values to test stated hypothesis and examine the connection between the constructs in the study.

Figure 3: Path Analysis



According to Table 4, the overall analysis of the findings indicated that four of the seven hypotheses were supported, and the others were not. The first hypothesized relationship H1, between performance expectancy and use behaviour was not confirmed. The result suggests that performance expectancy did not predict use behaviour ($t = -0.73, \beta = -0.40; p < 0.466$). The second hypothesized relationship H2, between effort expectancy and use behaviour was supported and finding suggest that effort expectancy positively influence the use behaviour ($t=0.24, \beta=0.24, p = 0.001$). The third hypothesis H3, demonstrating hypothesised relationship between social influence and use behaviour was not supported and finding revealed that social influence did not influence use behaviour ($t = -4.16, \beta =-0.14; p = p = 0.001$). The fourth hypothesized relationship H4, between habit and use behaviour was supported. The result suggests that habit positively influence the use behaviour ($t=5.64, \beta = 0.37, p < 0.001$). The fifth relationship hypothesised in H5, between price value and use behaviour was not supported and finding indicated that price value did not influence use behaviour. ($t=-1.93, \beta=-0.06, p < 0.053$). The sixth hypothesis which check relationship between hedonic motivation and use behaviour indicated as H6, was supported and result suggest that hedonic motivation positively influence use behaviour ($t=2.37, \beta=0.087, p < 0.001$). The last hypothesised relationship H7, capture to check influence of facilitating conditions on use behaviour was supported and finding reveals that facilitating conditions significantly positively influence use behaviour ($t=7.26, \beta=0.42, p < 0.001$).

Table 4: Standardised Co-efficient and t values.

Hypothesis	Path	Coefficients (β)	t-value	Result
H1	PE \longrightarrow UB	-0.40	-0.73	Not supported
H2	EE \longrightarrow UB	0.24	4.39	Supported
H3	SI \longrightarrow UB	-0.14	-4.61	Not supported
H4	HT \longrightarrow UB	0.37	5.64	Supported
H5	PV \longrightarrow UB	-0.06	-1.93	Not supported
H6	HM \longrightarrow UB	0.087	2.37	Supported
H7	FC \longrightarrow UB	0.42	7.26	Supported

8. DISCUSSION

The primary goal of this research was to develop a theoretical model and investigate the critical aspects that may impact mobile payment consumers' usage behaviour. The current study, using major antecedents of UTAUT2 theory, focuses on certain aspects of use behaviours such as user's knowledge and expertise (Tsai & LaRose, 2015), ease of use for users, user delight or enjoyment, users cost benefits trade off, social implications or influence encountered by users and infrastructure accessibility or availability (Smitha et al., 2012) to users in context of mobile payment options. The model was strongly supported with data and as per results of key constructs of UTAUT2 and factor loading (Table 2), all constructs used were important in predicting use behaviour of mobile payment. It is also supported with R2 value (0.62) which indicates that all constructs taken together in model are effective in predicting the use behaviour.

The study's findings reveal that four out of seven constructs (effort expectation, habit, hedonic motivations, and enabling factors) have an effective association to predict behaviour in terms of mobile payment acceptance and use. Given the responses and results, one of the predictors of use behaviour is effort expectancy ($\beta = 0.24$). Consumers prefer mobile payments over conventional methods such as cash or credit or debit card because mobile payments are easier and simpler to use (Balachandran & Tan, 2015). The key reasons are card transactions take longer time and require more effort than mobile payment because of multiple steps in executing transactions whereas carrying a cash is difficult and unsafe. These limitations do not apply to mobile payment systems. This result is backed by earlier studies that have shown how effort expectation was a key predictor of use behaviour intention (Chu, 2013; Martins et al., 2014b; P. Patil et al., 2020; Venkatesh et al., 2012a, 2003; T. Zhou et al., 2010). Another construct which influences the use behaviour is habit ($\beta = 0.37$). This is evident because current generation is using mobile phone for every task possible and developed a habit for conducting wide range of transactions through mobile. This is primarily due to user friendly interface, ease of use, anytime use and option to conduct transaction through wide range of widgets. This outcome is substantiated by few previous studies and researches that found habit to have a major impact on use behaviour intention (Aarts & Dijksterhuis, 2000; Chipeva et al., 2018; Lankton et al., 2010; Limayem et al., 2007; Venkatesh et al., 2012a; Yen & Wu, 2016)

Hedonic motivation, one more construct was also found to be having influence on use behaviour intention ($\beta=0.087$) in accordance with some past researches (Alalwan et al., 2018; G. S. Kim et al., 2008; Shaw & Sergueeva, 2019; Venkatesh et al., 2012a). The key reasons could be maximum respondents of this study were young and use of mobile payment services are bringing joy and enjoyment to them due to intrinsic utilities as compared to price value benefits. Another reason could be mobile, internet and telecommunication technology adding value through newness and innovation, which in turn probably explaining the key role of hedonic motivation in influencing use behaviour. Similarly, another construct discovered to be influencing the usage behaviour of mobile payment users in the study is enabling or facilitating situations ($\beta=0.42$). In the context of current research, such relationship denotes the availability of infrastructures, resources, and support to customers apart from required skill and knowledge. Finding of this relationship also supported in previous studies (Baptista & Oliveira, 2017; Morosan & DeFranco, 2016; P. Patil et al., 2020; Sivathanu, 2019; Yu, 2012; M. Zhou et al., 2020; T. Zhou et al., 2010)

In this study, it has been observed that three hypothesised relationships (performance expectancy, social influence, and price value) were not supported association with use behaviour. As per the findings, performance expectancy did not found influence the use behaviour ($\beta = -0.40$) and it is against the finding of previous studies which confirms performance expectancy as strong predictor of use behavioural intention (Oliveira et al., 2014; P. Patil et al., 2020; Shaikh et al., 2021; Teo et al., 2015; Venkatesh et al., 2003). This explains the belief that consumer's expectation about mobile payment technology or system's usefulness, benefits, features, and performance are not enough as a driving factor of use behaviour. The result of the study is consistent with previous researches (Allah Pitchay et al., 2022; Khalid et al., 2021; Kwateng et al., 2018). Similarly, the result of social effect construct is inconsistent with prior study findings (Hongxia et al., 2011; D. J. Kim et al., 2008; Liu et al., 2014; Martins et al., 2014b; Tarhini et al., 2016; T. Zhou et al., 2010) which revealed that social influence does influence use behaviour ($\beta = -0.14$). It may be stated that people are more concerned with transactional ease of use and convenience. Another factor might be the nature of technology, individual experience, talent, and privacy concerns, and such decisions should be based on personal needs rather than the influence of friends or family. These are few studies which disapproved significance of this construct. (Alalwan et al., 2016, 2018; HU et al., 2019; Sobti, 2019; Teo et al., 2015) in measuring use behaviour intention. Finally, price value is also not showing significance in predicting use behaviour ($\beta=-0.06$). This result is also consistent with prior studies under (Alalwan, Dwivedi, et al., 2015; Baptista & Oliveira, 2015). The result might be due to consumer access to mobile payment services are less costly or free except data charges incurred which customer incur for accessing internet through mobile device and service provider do not charge customer for use of app or system (Thusi & Maduku, 2020).

9. THEORETICAL AND MANAGERIAL IMPLICATIONS

As previously stated, the main goal of this study was to theoretically investigate the fundamental determinants impacting usage behaviour of existing mobile payment users in two

cities of Gujarat. Therefore, this study realised early on the importance of developing a strong and robust model capable of accurately predicting usage behaviour. So, after reviewing literature, UTAUT2 model proposed as theoretical foundation for this study due to its focus on customer context. The UTAUT2 model is widely used amongst other technology adoption and behavioural prediction model because it is simple, valid, reliable, and empirically tested (Foon & Fah, 2011; Tarhini et al., 2015, 2016; Venkatesh et al., 2012a, 2003; Venkatesh & Zhang, 2010). In developing countries many researchers have examined behaviour intention and technology adoption with UTAUT2 model (Tarhini et al., 2015, 2016; T. Zhou et al., 2010). To evaluate the model, data was obtained using a convenience sampling through self-administered questionnaire and structured equation modelling was then used to test the data.

One of the major contributions of this study to information system domain is predicting use behaviour using UTAUT2 theoretical foundation exclusively instead of behavioural intention. Prior studies have used behaviour intention as predictor but none of the study conducted with use behaviour as dependent variable or outcome in the developing country like India in the mobile payment context. The second contribution of the study is to explain the validity and generalisation of UTAUT 2 theoretical model with reference to mobile payment in India. This is evident from the result of the study which reveals that proposed model has explained 62% variation in predicting use behaviour amongst mobile payment users.

Result of the study also provides some important implications to mobile payment service provider, banks, financial institutions, policy makers and regulators. From the statistical data it is evident that factors like effort expectancy, habit, hedonic motivation and facilitating conditions are supporting the study. Hence, mobile payment service providers, banks / financial institutions, regulators, and policy makers should focus on these factors to enhance adoption and use behaviour. It is crucial to encourage customer to use applications or systems because it is voluntary and not mandatory. Since effort expectancy is one of the influencing factor, it is suggested that application developers and service providers to effectively design and provide the services that will simplify the utilisation of the apps and services (Dwivedi et al., 2019; N. Upadhyay et al., 2022). Hence, focus required to improve user interface and user experience through pertinent information, right content, features, design layout, value added services (online payment, e-shopping, utility bill payment and financial service transactions), multiple payment options (UPI, QR code, Mobile no, Bank A/c no. etc) and customised solutions. Similarly, it is also important for service provider, banks / financial institutions, and regulator to ensure right infrastructure, knowledge, and support services to customers to facilitate and enable customer to use apps or systems effectively. It could be possible by easy to control feature, imparting knowledge to customer besides supports like chat boat and support helpline. This will lead to increase usability, engagement, hedonic motivation, habit, and continuance use intention amongst customers. However, new technology or system will give opportunity to strengthen user habit apart from those existing systems or apps with which users are already accustomed with use. Apart from this, service providers including bank/FI and policy makers should run campaign on social media platform (YouTube, Facebook, Twitter etc) and other digital media to create awareness through audio-visual or video. This will further increase hedonic value amongst customers and further drive use intention and actual use amongst

customers. Therefore, policy makers, regulators, service provider firms and other organizations can get benefit from this study for the driving use of m-payment amongst mass.

10. LIMITATION AND FUTURE SCOPE OF STUDY

Although the result of this study provides fresh insight towards user's use behaviour toward mobile payment usage, it is restricted by number of limitations that couldn't be avoided. First, this study surveyed consumers with convenience sampling technique from Ahmedabad and Gandhinagar districts of Gujarat State. Hence, considering the geographical constrains, extra care should be taken while generalising the findings of this research to the entire population or in the context of other nations and cultures. Second, the study's findings revealed that most survey participants were young people with medium incomes who worked in private service. Because of this, the findings of the research would not be valid for other demographical divisions or categories. Therefore, future study should be conducted with extended geographical boundaries with the use of longitudinal research design and probability sampling technique. Third, the study didn't take into account the moderating influence of demographic characteristics such as age, gender, ethnicity, education level, and experience. The findings of effects of these moderating variables on user's use behaviour would provide deeper insight in future. Fourth, number of mobile payment users are increasing in India, finding of 139 sample size may not be represent behaviour of entire population. Thus, future study can be determined with sample of large numbers of users. Finally, current study conducted with only UTAUT2 variable and its impact on user behaviour. Therefore, future study can be conducted either with addition of few more independent variables (like promotion, perceived trust) and moderators or with new theory in the domain on information system to understand its impact on user's use behaviour with reference to mobile payment options.

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APPENDIX A
MEASUREMENT INSTRUMENT

Construct	Measurement Scale
Performance Expectancy	Mobile payment is useful in daily life
	Mobile payment is convenient to make various payments
	Using mobile payment, I can make quick transactions
	Mobile payment helps me increase my productivity
	All my payments can be completed using mobile payment
Effort Expectancy	It is easy for me to become skillful at using mobile payment
	It is user-friendly to use mobile payment
	Mobile payment is trouble-free
	Using mobile payment, I can make all types of payment
	It is easy to install mobile payment applications
	I know how to use the mobile payment system
Social Influence	People who are important to me think that I should use mobile Payment
	People whose opinions affect me think that I use mobile payment
	I got inspired by people around me who use mobile payment
	I feel proud of social group of mobile payment
Habit	I must use mobile payment
	I am habituated to use mobile payment
	I am dependent on mobile payment for financial transactions
Price Value	Mobile payment is free
	For me, mobile payment is value for money
	No charges are there for mobile payment transaction
Hedonic Motivation	I enjoy the use of mobile payment
	It is fun to use mobile payment
	Use of mobile payment is entertaining
	Mobile payment is an exciting way of making payment
Facilitating Condition	Mobile payment is widely acceptable
	I can easily get help from others for mobile payment use
	I can get help resolution help from a mobile payment service provider
	I have the required knowledge to use the mobile payment system
Use Behaviour	Currently, I am using mobile payment in my daily life
	I will keep using mobile payment daily in future
	I will recommend others to use mobile payment
	I am carrying out all my financial transactions through mobile payment
	I continue using mobile payment frequently