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The Role of Mobile Payment Systems in Shaping the Digital Marketplace

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i)Abstract

The preference for using mobile payment systems is significantly increasing thanks to advanced technology. While many companies and consumers are trying to adapt to this technology. This study investigates how consumers evaluate the perceived benefits (e.g., convenience, speed, trust/security) and perceived costs (e.g., learning effort, perceived risk) of mobile payment systems and how these pros and cons influence their choice to use them. Additionally, it also explores whether the purchase context (hedonic vs utilitarian) shapes these evaluations. This study uses a scenario-based approach with 131 participants who were randomly assigned to either complete a hedonic or a utilitarian shopping context and asked to evaluate mobile payments under those conditions. The findings revealed that perceived convenience significantly and positively influences mobile payment usage. On the other hand, learning effort negatively influences it. In contrast, speed, trust/security, and perceived risk did not significantly predict behavior. Moreover, contrary to expectations, no significant differences were found between hedonic and utilitarian contexts in how consumers perceived the benefits or costs of the mobile payments. This study contributes to both academic literature and practical function by highlighting the important role of usability and simplicity in mobile payment adoption. The results suggest that consumers' perceptions are more influenced by ease of use than by the emotional or rational context of the purchase. For businesses, the message is: to increase adoption and satisfaction, there should be more focus on making mobile payment systems more intuitive, accessible, and easy to learn without looking at what customers are buying.

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1.0 INTRODUCTION

This study examines the environmental and psychological elements that affect customers' decisions to choose a certain payment method with an emphasis on mobile payment systems. The study, which is based on research on consumer decision-making and technology adoption, looks at how perceived benefits (speed, ease of use, convenience, and security) and risks (privacy risk, complexity, and learning effort) affect the propensity to choose mobile payment systems over conventional payment methods. There are many payment methods that are used in different types of industries and different types of shopping journeys. In recent years, payment systems have evolved from simply cash or credit card transactions to different types of mobile payment systems and many institutions are trying to adapt to the mobile payment systems features because of the increased usage of m-paymenet systems and it will take time for both institutions and the customers to fully get used to use this new way of payment method. Mobile payment systems can be considered the most trending method when it is compared to other payment methods nowadays because of the advanced technology and increased rate of mobile phone usage. Even some people stop carrying wallets and prefer to pay with m-payment systems because of their benefits, like convenience, speed, etc. There are many different types of m-payment systems (e.g, SMS, QR Code, and NFC). It is also crucial to understand these systems because the preference of customers can vary according to which systems are implied in different scenarios, and each type of these mobile payment systems requires different technology knowledge to use. For instance, NFC and QR systems are proximity systems, while SMS is remote. At this point, with the increased popularity of mobile payment systems, adoption of these types of payment comes to consumers' minds. Adoption is mostly driven by perceived advantages such as improved security, ease of use, convenience, and transaction speed. On the other hand, it may be limited by some concerns like privacy, complexity, or the mental difficulty to adapt to a new technology. The main objective of this research is to find out how the different types of purchase types (hedonic or utilitarian) influence the link between the consumer's preferred payment method and perceived risks and benefits. Although the adoption of mobile payments has been extensively studied in the literature, there is not much research that looks at how the

context of the purchase, its emotional or functional aspects, affects the use of mobile payments in comparison to more traditional methods. Therefore, this study seeks to answer the following research questions:

- How do perceived benefits and costs influence the decision to use mobile payment methods?
- Does the hedonic or utilitarian nature of a purchase alter this influence?

Understanding these dynamics is crucial as mobile payments continue to gain traction in both developed and emerging markets.

The study proposes that the influence of benefits and costs on payment method choice differs based on whether the consumer is engaging in a hedonic or a utilitarian purchase. The relevance of this topic is the increasing usage of digital payments in global commerce. As mobile payment systems keep developing, businesses should understand their influence on consumer decision-making to create their strategies and improve the customers' shopping experiences. Examining the psychological and functional factors that influence the adoption of mobile payments will advance academic studies and real-world applications while providing insightful information to help financial institutions, entrepreneurs, and legislators navigate the future of digital transactions. Even though there are still some concerns in consumers' minds about mobile payment systems because of some costs, it doesn't change the fact that these types of payment methods will be in our lives and will be used by many people from different industries. While studies have mentioned mobile payment adoption, few have examined how purchase type, whether it is utilitarian or hedonic, moderates the relationship between payment method and perceived benefits, costs of different payment methods (mobile payment vs usual payment). The crucial thing to be observed in this paper is the occasions when customers prefer to use mobile payment methods instead of a credit card or cash, depending on the different benefits and costs of the payment methods in different shopping contexts.

2.0 LITERATURE REVIEW

This section explores the existing research on mobile payment systems, the psychology behind hedonic and utilitarian purchases, and how perceived benefits and costs play a crucial role in customers' purchase decisions.

2.1 Mobile Payment Systems

Mobile payments are the transactions with a monetary value that are conducted through a mobile telecommunication network through diverse mobile users' devices, such as cellular telephones, smartphones, or PDA’s, and mobile terminals. Also, mobile payment is a transfer of funds in return for goods or services in which a mobile device is functionally involved in executing and confirming payment. The payer can be standing at a POS or be interacting with a merchant located somewhere else Raina, 2014). Another important definition about how a mobile payment system works is when a customer and a merchant agree on a transaction and either one of them notifies the mobile payment service provider. The mobile payment service provider confirms the transaction to the customer via his/her mobile phone and then asks the customer for approval. Once approved, the provider administers the transaction and stores the appropriate fund transfer instructions. Periodically, these payment instructions are cleared, resulting in net payment instructions. Settlement can take place in a variety of ways. On the merchant’s side, it is usually the bank account that is updated. On the customer’s side, one of a prepaid account, a bank account, or a credit card account is updated. Van der Heijden, H. (2002). As can be understood from above, there could be many definitions for mobile payment systems in different usage occasions.

There is a significant increase in the usage of m-payment systems after the pandemic. The pandemic has changed people's lives in many ways and even impacted our shopping habits. The pandemic has highlighted shortcomings in contact payments (e.g., cash and card payments), which may become carriers of virus transmission. Therefore, mobile payment systems, as a contactless payment method, are favored by customers because of their benefits. Statistics show that in September 2019 (BIS,2020), the share of contactless accounts accounted for 27 % in all card-presented transactions by a

global card network, and it rose more than 33% in just 6 months. Many countries also encourage mobile payments by raising transaction limits in the second quarter of 2020. By the end of the decade, they expect significant boosts in their use of retail apps (plus 8 percentage points), Apple PayTM/Samsung PayTM (plus 7 percentage points), and PayPal (plus 6 percentage points), De Luna et al. (2019). Mobile payment systems are increasingly gaining attention from people thanks to their convenience. Technologies like Near Field Communication (NFC), QR codes, and SMS based payment systems have made transactions smoother and more convenient for consumers more than ever. The use of SMS for mobile payment requires a communication protocol enabling the exchange of short text messages between two mobile devices. (Valcourt et al., 2005). This type of payment is particularly popular in several countries in Africa where the use of cash may be common but risky, and where smartphone penetration is low and internet access is scarce. (Fernández, 2015; Lowry, 2016). In contrast to SMS payment systems, NFC payments are made in person in a store. This technology attracted a lot of attention, especially since it is an easy-to-use method for data exchange that requires simply approximating the devices, and the functions of NFC technology are unlimited, as it can be integrated into many features. (Luna, 2017). It is almost used by every institution in order to make the transaction process easier for both consumers and the institutions. Another form of contactless method is the QR code. QR codes are storage systems that use a dot matrix or two-dimensional bar code developed by Denso Wave. (Denso Wave, 2000). The usage of QR code systems is very common in public transportation in many countries. Research suggests that consumers are more likely to complete a purchase when mobile payment options are available. According to a study by (Liu et al. (2020), mobile payment affects consumer behavior, following calls for innovative findings in consumer research on mobile payments (Dahlberg et al., 2015). They applied the “credit card effect” to mobile payment. The results of this study are consistent with Falk et al. 's (2016) finding that the WTP for mobile payments is higher than that for cash payments, and the mobile payment effect also occurs when purchasing specific products. As a result of this study, it can be said that it would be profitable for institutions they start adapting to mobile payment systems. While mobile payment systems offer many advantages, there are also some concerns in consumers'

minds. Privacy, security, and economic risks remain key factors that influence consumers' trust in digital transactions. Businesses and financial institutions keep improving their mobile payment systems to secure smoother and safer adoption in order to decrease concerns in consumers' minds. In summary, mobile payment systems seem to be in our lives for a long time, with both benefits and costs they offer thanks to the advanced technology, and it's important for all of us to start adapting to use this type of payment system.

2.2 Hedonic vs Utilitarian Consumption

Consumers' purchases are generally divided into two categories: hedonic and utilitarian. Utilitarian purchases contribute to happiness by facilitating and simplifying our practical needs and are associated with satisfaction, confidence, and security (Chitturi et al., 2007, 2008). On the other hand, hedonic purchases are explicitly targeted at increasing enjoyment and eliciting excitement to make us happy (Chitturi et al., 2007, 2008). Studies indicate that hedonic value 53% has more impact on consumer's shopping experience than utilitarian value (35%) Wang, (2022) Additionally, discounts and promotions tend to have a greater effect on hedonic purchases, as consumers are more impulsive when buying for their pleasures (Kivetz & Zheng, 2016). On the other hand, utilitarian shopping refers to purchasing a product for functional and economic benefits. (e.g, microwaves, Detergents, home security systems, or personal computers). Also, consumers' consumption, whether it is utilitarian or hedonic, differentiates based on who they are consuming for. For instance, consumers who decided for others preferred hedonic consumption over utilitarian consumption compared with consumers who decided for themselves. Lu, J., Liu, Z., & Fang, Z. (2016). Another important aspect when hedonic and utilitarian consumption is observed is how they are presented to the consumers. Previous studies about this topic showed that there is a relative preference for the hedonic alternative when each is presented singly, whereas there is a relative preference for the utilitarian alternative when both are presented side by side. After this study also consumers' WTP is also calculated in the same study, and the results showed that consumers tend to spend more time on the acquisition of hedonic goods and more money on utilitarian goods. Okada, E. M. (2005). Some other studies suggest

that hedonic shopping value is positively associated with utilitarian shopping value, and according to the results, hedonic was positively associated with utilitarian shopping value. They found out that there is an association of $\rho = 0.56$ between both dimensions (Vieira et al., 2018) like other studies, such as $r = 0.61$ (Batra and Ahtola, 1991), $\varphi = 0.56$ (Babin *et al.*, 1994) and $\varphi = 0.37$ (Spangenberg *et al*., 1997).

2.3 The Role of Mobile Payments in Hedonic vs Utilitarian Consumption

Mobile payment systems play a crucial role in consumers' minds by enhancing the overall shopping experience. They provide seamless, fast, and often more engaging ways for customers to complete their purchases. By cutting wait times and raising consumer satisfaction, the retail sector's use of mobile payment solutions has allowed companies to provide an effective transaction procedure. Given the growing importance of mobile payment adoption, understanding these concepts can provide important insights for businesses. The influence of mobile payment systems differs according to different types of purchases (e.g, hedonic and utilitarian). For hedonic purchases, mobile payment systems enhance the shopping experience by enabling instant transactions that do not harm the enjoyment of the whole experience, which increases the satisfaction of consumers. Consumers who are involved in hedonic shopping often appreciate the ease and speed of digital payment methods, as they align with the impulsive and spontaneous nature of such purchases. A smooth payment process contributes to a more enjoyable and satisfying shopping journey.

Mobile payment methods have a more practical function when it comes to utilitarian purchases. Convenience is still crucial, but utilitarian consumers value security, dependability, and financial management more. Customers who make practical purchases are more drawn to mobile payment solutions that provide improved verification, transaction tracking, and budgeting capabilities because they place a higher value on effectiveness and money management.

Perceived benefits play an important role in how consumers use mobile payment systems in different scenarios. These benefits can include ease of use, transaction speed, security, convenience, and social benefits. The convenience offered by mobile

payments has been recognized in the literature as a basis of preference over other traditional payment methods (e.g., Dewan and Chen 2005; de Kerviler et al. 2016; Kim et al. 2010). Convenience captures the primitive purpose of the technology, to make human life easier through the reduction of the difficulty in common tasks (Kim et al. 2010). Therefore, we posit, the convenience perceived by mobile payments' users would positively influence an individual's intention to use it. On the other hand, ease of use and social benefits have an indirect positive effect on the intention to use mobile payment systems. (Sari et al., 2022). Also, ease of use and perceived security have a great influence on intention to use mobile payment and have a significant relationship. Consumers with a higher level of perceived security are more likely to adopt and accept new mobile payment systems (De Luna et al., 2018).

2.4 Perceived Benefits and Costs of Mobile Payment Systems

Technology-enabled services are useful to the extent that they offer relative benefits to consumers (Walker & Johnson, 2006). contended that technology-enabled services are beneficial if they are advantageous and preferable to alternative methods. Because the convenience of using m-payment presents consumers with clear advantages over cash and credit card payment methods, the perception of benefit may lead to increased consumer' trust. The mobile commerce literature on perceived benefits seems to suggest that consumers are likely to trust this medium when the benefits of using it are foreseeable. Some mobile commerce benefits that could also be applied to m-payment are mobility, reachability, compatibility, convenience, and complexity (Tornatzky & Klein, 1982). Convenience is specifically important for m-payment functions. The apparent convenience of using m-payment is its flexibility, the independence of time and space, and the level of control that consumers have over this medium. (Park et al., 2019). On the other hand, there are also some perceived risks of mobile payment systems. Perceived risk is considered one of the important factors that affect consumer behavior. Understanding perceived risk determinants and implications is particularly useful for marketers in their strategy design process (Laroche et al., 2003). The impersonal characteristic of e-commerce makes risk pervasive to any e-commerce activity (Pavlou, 2003). The risk with e-commerce is exacerbated because of the uncertainty around the

mobile commerce system (D. Kim et al., 2008). Perceived risk is one of the crucial factors in the mobile transaction environment, which is highly affected by financial and security concerns (Slade et al., 2015). The risk associated with using m-payment could occur at any level of the steps and could be characterized as unauthorized transaction, transaction errors, lack of transaction record and documentation, vagueness of the transaction, privacy issues, and mobile network and device reliability (Bauer et al., 2005). Another interesting risk of mobile payment systems is the learning cost. Learning costs are considered transition costs that are incurred while shifting from one situation to a new situation, for example, learning to use a new information system. Learning costs are non-monetary perceived costs which include sacrifices (time, effort, and search costs) needed to obtain or use a product or service. The negative effect of learning cost on behavioural intention to use mobile payment services has been proposed and tested in a few studies in the past. There is some evidence of a negative impact of learning costs on loyalty to SMS, similar to the evidence obtained in other studies in this area. Lee et al. found that absorptive capacity contributes to the intention to use mobile services. Reversely, the lack of prior knowledge requires potential users to learn how to use the new mobile payment service, thus incurring higher learning costs, higher switching costs, and reducing their intention to use it. Similarly, found that perceived costs had a significant negative effect on behavioural intention to use mobile payment services. (Molina-Castillo et al., 2020)

2.5 Overspending

Overspending can be considered a problem that emerged in modern consumer behavior driven by different factors like psychological, technological, and social. Overspending may cause some negative outcomes, like indebtedness, reduced well-being, and financial stress. The growing usage of credit cards, mobile payment systems, and e-commerce platforms makes every purchase easier than before and leads to enhanced impulsive behaviors by weakening self-control.

Previous studies used different aspects of behaviors as proxy indicators to capture overspending behaviors, including income overspending (where spending exceeds

income) (Sui et al., 2021), credit card overconsumption (where consumers spend more on credit cards than they can pay off) (Ming et al., 2019; Sotiropoulos & d'Astous, 2013; Sui et al., 2021), and money management in bill payment (where consumers have difficulties in paying bills on time) (Barbić et al., 2018; Ming et al., 2019). Thus, the current study examines overspending behaviors with income overspending, money management, and credit overconsumption (Barbić et al., 2018; Sui et al., 2021) to depict various aspects and outcomes of overspending behavior.

Despite the well-recognized potential consequences, research on the effect of mobile payments on overspending behaviors remains understudied. Existing studies on overspending primarily focused on the effects of psychological factors, such as self-control, self-efficacy, and social norms (Sotiropoulos & d'Astous, 2013; Xiao & Porto, 2019). Few studies examined how mobile payments, as a convenient and efficient new payment system for consumers, stimulate overspending behaviors.

There are several studies that examined how cash and credit card payment methods influence consumer spending behavior. Considerable research has compared cash and credit cards and demonstrated that lower pain of paying is associated with credit card payments (Gafeeva et al., 2018; Soman, 2003). The lower pain of the card payments is explained by payment transparency. For instance, a credit card is less transparent than cash because monetary outflow in card payments is not physically tangible and does not involve paying with paper bills and coins (Soman, 2003). Consequently, consumers feel less pain with card payments and are emotionally detached from the outflow of their money (Thomas et al., 2011), thus increasing overall spending (Feinberg, 1986; Srivastava et al., 2010).

Payment transparency suggests that mobile payment is less tangible than cash or credit card payments and lowers the pain of payment even more, thus leading to more overspending. Shah et al. (2016) also found that individuals associated mobile payment use with significantly lower pain compared to other conventional payment methods.

Thus, the lower pain associated with cashless payment methods, such as credit cards or mobile payments, is likely to increase consumers' overall spending. In sum, the

literature suggests that the higher the transparency of payments, the higher the pain of payments, and the transparency of mobile payments is lower than that of cash or credit card payments (Falk et al., 2016; Soman, 2003). As a result, it can be said that mobile payment systems lead to overspending with decreasing pain more than other payment methods, like cash or credit cards. It makes the transaction smoother for customers and reduces the pain of spending. When people decide to pay with mobile payment systems, they feel like the money they spend on something never decreases from their personal account, which causes more impulse buying.

3.0 HYPOTHESES

Based on this theoretical foundation, we propose the following refined hypotheses:

H1: Perceived benefits of mobile payment systems positively influence consumers' choice of mobile payment

This hypothesis is based on the Technology Acceptance Model (TAM) developed by Davis (1989), which identifies perceived usefulness as a key driver of technology adoption. In the context of mobile payments, perceived benefits may include convenience, speed, ubiquity, and security (Yang et al., 2012; Oliveira et al., 2016). When consumers view mobile payment systems as enhancing the efficiency and ease of transactions, they are more inclined to adopt them over traditional payment methods.

H2: Perceived costs of mobile payment systems negatively influence consumers' choice of mobile payment.

Consumers engage in a cost-benefit analysis when considering the adoption of new technologies (Rogers, 2003). Perceived costs may involve monetary concerns (e.g., transaction fees), security risks, complexity, or loss of control over financial information. Higher perceived costs reduce the perceived value of mobile payment systems, thereby discouraging adoption (Liébana-Cabanillas et al., 2014; Slade et al., 2015).

H3a: The positive effect of perceived benefits on mobile payment choice is stronger in hedonic purchase contexts than in utilitarian contexts.

Hedonic purchases are driven by emotion, enjoyment, and experiential value (Batra & Ahtola, 1990). In such contexts, consumers seek seamless and enjoyable experiences, making the convenience and immediacy of mobile payments especially attractive (Zhou, 2013). Therefore, the perceived benefits of mobile payment systems have a stronger impact when consumers are engaged in hedonic consumption.

H3b: The negative effect of perceived costs on mobile payment choice is stronger in utilitarian purchase contexts than in hedonic contexts.

Utilitarian purchases are rational, functional, and goal-directed (Dhar & Wertenbroch, 2000). Consumers making such purchases tend to be more sensitive to efficiency, risk, and cost factors. As a result, when mobile payment systems are perceived as complex, insecure, or unreliable, the deterrent effect is more pronounced in utilitarian settings than in hedonic ones (Chung et al., 2010; Venkatesh et al., 2012).

4.0 CONCEPTUAL DEVELOPMENT

Mobile payment systems, which provide better convenience, speed, and flexibility during transactions, have significantly changed the consumers' shopping habits in a positive way in recent years. Still, there are also some concerns in consumers' minds because of some costs. However, there is still a lack of knowledge on how the purchase type (utilitarian or hedonic) moderates the relationship between the mobile payment systems and the perceived benefits and costs of mobile payment systems. It can be said that in different shopping scenarios, customers' payment preferences may vary depending on different benefits and costs. The existence of mobile payment systems affects purchase intention for different kinds of purchases, even though prior research has examined both the technology elements of mobile payments and the psychological dynamics of consumer decision making. By offering a conceptual framework that investigates the moderating function of purchase type in the connection between mobile payment systems and perceived benefits and costs they offer (e.g, convenience, trust and security, speed, learning cost, perceived risk).

The proposed framework includes a moderator: purchase type (hedonic and utilitarian purchases) and an independent variable which is payment method (mobile payment systems), dependent variable: perceived benefits and costs of the mobile payment systems in different shopping contexts. Utilitarian purchases are logical, goal-oriented, and prioritize practical value. On the other hand, hedonic purchases are emotionally driven and frequently linked to pleasure, indulgence, and experiential value. In hedonic environments, where immediacy and emotional flow are underlined, the availability of mobile payment systems may increase the perceived ease and enjoyment of making a transaction. While in utilitarian environments, speed and convenience reduce waiting times and make transactions faster which is increasing the efficiency of the shopping journey for utilitarian shoppers, who generally want to complete their purchases quickly and with minimal friction.

The model's dependent variable perceived benefits and costs examines how customers assess the whole value gathared from the transaction. Benefits may include timesaving, ease of use, emotional satisfaction, speed and convenience. Costs may include security, trust, learning effort, and privacy. At the checkout process, most consumers measure these benefits and costs given above, then decide which payment method they are going to use to complete the purchase. This study suggests that the relationship between payment method and perceived benefits and costs is strengthened by the context of the shopping, which can be either utilitarian or hedonic.

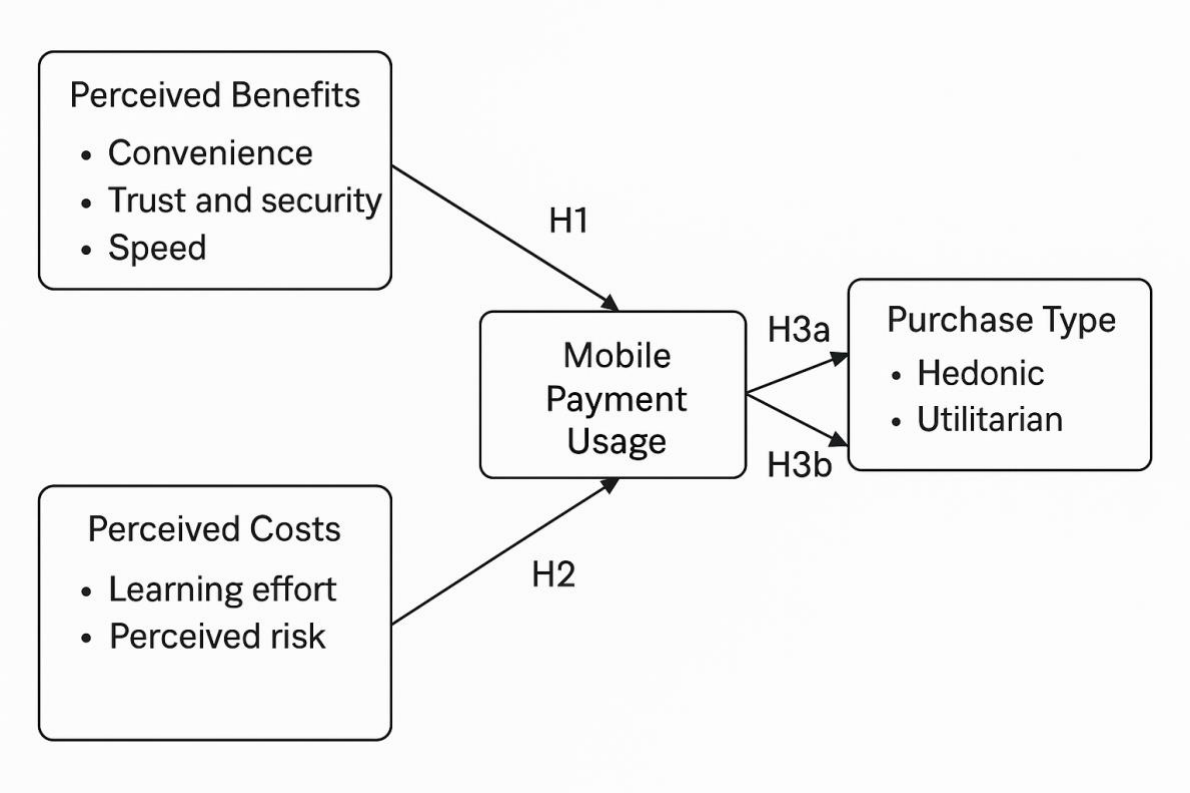
As a result, the conceptual framework pictured a process-oriented viewpoint, whereby technology and contextual elements influence purchasing decisions by influencing the consumer's subjective evaluation of advantages and disadvantages. By using this framework, the study aims to enable retailers and digital payment companies that want to maximize the shopping experience across different product categories with both theoretical understanding and real-world applications.

There are many studies that focus on how payment methods, especially focus on mobile payment systems, influence purchase behavior, intention, or consumer

satisfaction, but there are few studies that explore how consumers evaluate the perceived benefits and costs of mobile payments in different purchase contexts(utilitarian or hedonic).In this study, it’s not only asked whether consumers will buy or not, but also how they evaluate mobile payment methods differently depending on what they are buying. This adds a contextual point of view to understand the interaction between the customer and the payment method. In summary, this framework fills a gap by showing that customers' evaluations of payment methods (in terms of perceived benefits and costs) are contextually driven by the type of purchase (hedonic vs utilitarian), offering a psychologically deep and detailed understanding of payment experience.

To understand this topic better, a survey will be implemented to reach around 120-150 people, and, in this survey, mobile payment systems will be the main focus and highlighted in the questions with the perceived benefits and costs since the goal of this study is to understand more about mobile payment systems and the usage occasions. In this survey, 2 different scenarios with different shopping contexts will be presented to the respondents. In the first scenario which includes the hedonic purchase experience, respondents will be required to imagine that they are browsing a fashion website and come across a limited-edition purse from a famous designer. The purse is trendy and highly praised for its unique design. they don’t necessarily need them, but it makes them excited and attracted to buy. Finally, they decide to purchase the purse purely for their enjoyment. At the end they will proceed with the payment with mobile payment systems. On the other hand, in the second scenario which includes a utilitarian shopping context they will be required to imagine that they are browsing an online store and come across a high-performance trekking backpack designed for hiking and mountain climbing. The backpack is made from durable, weather-resistant materials and includes multiple compartments, hydration compatibility, and ergonomic support for long-distance carrying. It’s highly rated for its functionality, safety features, and comfort. They have been planning outdoor activities and need a reliable backpack for their upcoming trips, and this one fits their practical requirements. At the end, it will also be required from them to complete the purchase with mobile payment systems. After these scenarios there would be some questions about the selected perceived benefits and

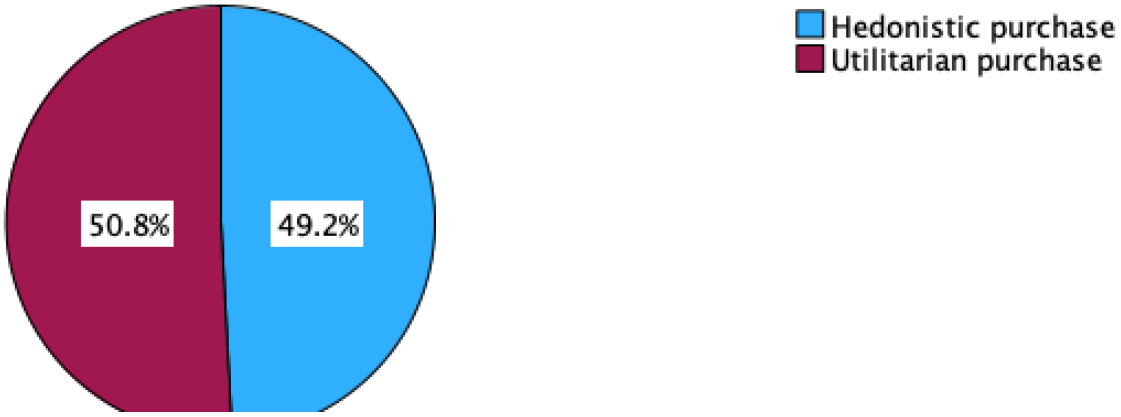
costs of this purchase. Afterwards, the results will be analysed from SPSS and an independent sample t-test will be implemented with 2 conditions which are utilitarian vs hedonic and perceived benefits and costs to comprehend the relationship between these two variables for the H3a and H3b. Next to the independent sample t- t-tests, there would also be regression analysis for H1 and H2 because these two hypotheses involve understanding the predictive relationship between multiple independent variables (perceived benefits and costs) and a dependent variable (mobile payment usage frequency). This model will be more ideal for testing the hypothesis that provides more about positive and negative influence rather than simple group differences in independent sample t-tests. At the end of the SPSS analysis, the results will be explained in a more detailed and clear way with the images and graphs that are gathered through the data collected. Also, the conceptual framework will be provided below for a better understanding and visualization of the variables and the hypotheses.



5.0 RESULTS

In this section, the results that were gathered through SPSS will be explained. 131 respondents participated in this study, and they were assigned to two different scenarios, which included hedonic and utilitarian shopping contexts. %51 of respondents is exposed to a utilitarian purchase scenario, and %49 of them is assigned to hedonic purchases.

To sum up, independent sample t-test, regression analysis, and frequency analysis were conducted in this survey.



5.1 Frequency Tests

A) Online Shopping Frequency

The results revealed that online shopping is a common activity in the participants' usual shopping life. A significant percentage of respondents reported engaging in this activity regularly, with 45,5% specifying that they shop online frequently, and an additional 19.7% indicating that they do so very frequently. In total, this explains that approximately more than half of the sample are frequent online shoppers, suggesting that digital commerce plays a significant role in their purchasing behavior, and it makes the whole shopping journey for customers. There are almost no people in the world who have no access to the internet, and thanks to advanced technology, peopleare gettingt more used to online shopping than before, withall the benefits of the technology.

On the other hand, 26,5% of participants reported shopping online occasionally, while only 8.3% stated that they rarely shop online, which also can vary because of the

different age groups. These findings highlight an important aspect: while some respondents use online channels sometimes, the majority appear to have integrated online shopping into their usual consumption habits.

B) Usage of Mobile Payment Systems

The data that was gathered for mobile payment systems showed a strong tendency for customers to use. Participants were asked to rate how often they use mobile payment systems on a 7-point Likert scale (1=Never,7=Always). The most common response was “usually”, selected by 28% of participants. Next to that, 21.2% stated using mobile payments frequently, and 16.7% reported they always use them. In total, 65% of the sample prefer to pay with mobile payment systems consistently.

In contrast, comparatively few respondents reported low levels of usage. Only 0.8% stated that they never use mobile payments, which proves that mobile payment systems will be an indispensable part of our shopping habits in the future and now. While 10.6% reported using them rarely, and 9.1% said they do so occasionally. These results suggest that mobile payment systems are favoured by many people thanks to their benefits in overall they provide to people in their shopping journeys.

5.2: Interpretation of Regression Analysis (H1 and H2)

In order to analyse the influence of perceived benefits and costs on mobile payment systems usage, a multiple regression analysis was conducted. This analysis tests two core hypotheses:

H1: Perceived benefits of mobile payment systems positively influence consumers’ choice of mobile payment

H2: Perceived costs negatively influence consumers’ choice of mobile payment.

The results showed that the overall model was statistically significant (F (5, 126) = 6.809, p < .001), explaining approximately 21.3% of the variance in mobile payment usage frequency. This finding suggests that the selected set of benefit and cost-related predictors provides meaningful insight into consumer behavior in this domain.

A) Perceived benefits (H1)

H1 was partially supported. Among the three benefits, the dimensions include convenience, trust/security, and speed. Only convenience demonstrated a statistically significant and positive relationship with mobile payment usage (β = .215, p = .018), which makes convenience the strongest benefit among others in customers who are using mobile payment systems. This proves that individuals who perceive mobile payments as more convenient are more likely to use them frequently. This finding matches with previous research highlighting the centrality of ease and accessibility in technology adoption. (Davis, 1989; Venkatesh et al., 2003).

On the other hand, trust and security, while positively associated with mobile systems usage, did not reach traditional levels of statistical significance (p=.099), proposing a marginal effect at best. This might reflect a shifting consumer group in which trust in digital payment methods has become pretty standardized across platforms, reducing its discriminative power as a predictor. Additionally, trust may play a more significant role in the beginning of the adoption phase rather than in the ongoing usage phase in the customer journey.

Surprisingly, speed had no significant effect on mobile payment usage (p=.680). One possible explanation is that speed is a core expectation from the consumer's point of view for mobile transactions rather than a distinguishing benefit. Consumers may perceive most mobile payment systems as sufficiently fast, leading to a constrained variation in how speed influences behavior.

Overall, these results suggest that perceived convenience is the most crucial benefit influencing behavior, while trust and speed may be secondary or depend on contextual factors.

B) Perceived Costs (H2)

The results offered stronger support for H2. Between the two cost-related elements, which are learning effort and perceived risk, only learning effort had a statistically significant negative effect on usage (β = -.289, p < .001). This suggests that customers

are less likely to get used to using mobile payment systems regularly if they believe they are challenging to understand and ensure.

This aligns with theories of technology readiness and the technology acceptance model (TAM), where learning cost plays a critical role in adoption behavior (Davis, 1989; Parasuraman, 2000). It enhances the idea that minimizing cognitive barriers is crucial for encouraging extensive use.

In contrast, perceived risk did not significantly influence mobile payment systems usage (p=.446), suggesting that concerns in consumers' minds about security or potential loss are less relevant to ongoing usage behavior, possibly due to enhanced confidence in well-known platforms or security measures. Alternatively, risk views may act strongly at the initial consideration stage and reduce over time with repeated use and familiarity. All the results above are represented in the table below. (Figure 1.1)

Figure 1.1 Regression Analysis

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Learning cost total, Speed Total, Perceivedrisktotal, TrustandSecurity, Convenience Total[b]	.	Enter

a. Dependent Variable: Please indicate your level of agreement with the following statements concerning mobile payment systems. 1= Never, 7= Always - How often do you use mobile payment systems ?

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.461[a]	.213	.181	1.442

a. Predictors: (Constant), Learning cost total, Speed Total, Perceivedrisktotal, TrustandSecurity, Convenience Total

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	70.756	5	14.151	6.809	<.001[b]
	Residual	261.873	126	2.078		
	Total	332.629	131			

a. Dependent Variable: Please indicate your level of agreement with the following statements concerning mobile payment systems. 1= Never, 7= Always - How often do you use mobile payment systems ?

b. Predictors: (Constant), Learning cost total, Speed Total, Perceivedrisktotal, TrustandSecurity, Convenience Total

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.510	.985		3.562	<.001
	Convenience Total	.079	.033	.215	2.400	.018
	Speed Total	-.014	.035	-.037	-.414	.680
	TrustandSecurity	.051	.031	.147	1.662	.099
	Perceivedrisktotal	-.027	.036	-.064	-.764	.446
	Learning cost total	-.101	.029	-.289	-3.490	<.001

a. Dependent Variable: Please indicate your level of agreement with the following statements concerning mobile payment systems. 1= Never, 7= Always - How often do you use mobile payment systems ?

5.3 Interpretation of Independent Sample t-test Analysis

The t-test analysis in this study aimed to understand whether perceptions of mobile payment systems' benefits and costs differ depending on hedonic and utilitarian purchase contexts. The perceived benefits analyzed contain convenience, trust, security, and speed variables, while perceived costs include learning effort and perceived risk. It was hypothesized that consumers would interpret these dimensions differently depending on whether they were engaging in a hedonic or utilitarian shopping experience, aligning with H3a and H3 b.

In contrast to expectations that were made before, the results of the independent sample t-tests indicated no statistically significant differences in perceptions between hedonic and utilitarian shopping contexts for any of the examined constructs. On the other hand, there were small variations in mean scores observed; none of these differences reached a statistical significance at the conventional alpha level of .05. As a result of the independent sample t-tests analysis, H3a and H3b are not supported.

A) Perceived Benefits

The data revealed that users who were assigned to complete a utilitarian purchase scenario reported slightly higher average scores for perceived convenience (M=23.01) compared to other participants who engaged in hedonic purchases (M=22.75), although this difference was not significant t (130) = -0.343, p = .732). Similarly, turst and security were rated higher in utilitarian context (M=20.22) than in hedonic purchase scenarios

(M=19.40), but again, the difference was statistically not significant enough (t (130) = -1.042, p = .300). In contrast, the dimension of speed showed the most declaredmean difference among these benefits, with utilitarian purchases scoring higher (M = 15.19 vs. M = 14.12), yet this difference still failed to reach significance (t (130) = -1.519, p = .131).

These findings showed that consumers may not strongly differentiate their perceptions of mobile payment benefits based on the context of the purchase. Whether a purchase is emotionally driven (hedonic) or functionally driven (utilitarian), benefits like convenience, trustworthiness, and speed of mobile payment systems appear to be consistently valued.

This challenges the assumption incorporated in H3a, which suggested that perceived benefits would have a stronger positive effect in a hedonic context. It was reasoned that because hedonic shopping contexts are driven by emotion and impulse, users might give more importance to features that enhance convenience and ease of use in general. However, the results do not support this claim by suggesting that the usefulness of mobile payment systems may be assessed apart from the emotional-functional split and go beyond reasons for making a purchase.

B) Perceived Costs

Concerning the perceived costs of mobile payments, such as learning effort and perceived risks, the results followed a similar pattern to the perceived benefits that were mentioned before. In utilitarian shopping contexts, consumers reported slightly higher perceived learning effort (M = 8.75) and risk (M = 11.69) compared to those in hedonic purchases (M = 8.15 and M = 11.52, respectively). However, these differences were also not statistically significant (t(130) = -0.747, p = .457 for learning effort; t(130) = -0.249, p = .803 for risk).

These outcomes provide no empirical support for H3 b, which proposed that the negative effect of perceived costs would be stronger in the utilitarian shopping contexts. From a theoretical point of view, it was expected that concerns about costs, particularly cognitive effort and potential risks, would have a bigger impact in functionally oriented purchases, where decision making tends to be more deliberative. However, the results

revealed that these concerns are similarly considered in both contexts by consumers, or perhaps that users unconsciously evaluate mobile payment costs differently depending on whether the goal is practical or experiential.

All the results about what were mentioned above will be presented in the table below. (Figure 1.2)

Figure 1.2 Independent Sample T-Tests

T-Test

Group Statistics

	Purchasetype	N	Mean	Std. Deviation	Std. Error Mean
Convenience Total	Hedonistic purchase	65	22.7538	4.60649	.57136
	Utilitarian purchase	67	23.0149	4.12859	.50439

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Convenience Total	Equal variances assumed	.263	.609	-.343	130	.366	.732	-.26108	.76088	-1.76638	1.24422
	Equal variances not assumed			-.343	127.520	.366	.732	-.26108	.76214	-1.76917	1.24701

Independent Samples Effect Sizes

		Standardizer[a]	Point Estimate	95% Confidence Interval	
				Lower	Upper
Convenience Total	Cohen's d	4.37040	-.060	-.401	.282
	Hedges' correction	4.39581	-.059	-.399	.280
	Glass's delta	4.12859	-.063	-.404	.278

a. The denominator used in estimating the effect sizes.
Cohen's d uses the pooled standard deviation.
Hedges' correction uses the pooled standard deviation, plus a correction factor.
Glass's delta uses the sample standard deviation of the control (i.e., the second) group.

T-Test

Group Statistics

	Purchasetype	N	Mean	Std. Deviation	Std. Error Mean
Speed Total	Hedonistic purchase	65	14.1231	4.10224	.50882
	Utilitarian purchase	67	15.1940	3.99712	.48833

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Speed Total	Equal variances assumed	.084	.772	-1.519	130	.066	.131	-1.07095	.70496	-2.46563	.32372
	Equal variances not assumed			-1.519	129.587	.066	.131	-1.07095	.70524	-2.46622	.32432

Independent Samples Effect Sizes

		Standardizer[a]	Point Estimate	95% Confidence Interval	
				Lower	Upper
Speed Total	Cohen's d	4.04921	-.264	-.607	.079
	Hedges' correction	4.07276	-.263	-.603	.078
	Glass's delta	3.99712	-.268	-.611	.077

a. The denominator used in estimating the effect sizes.
Cohen's d uses the pooled standard deviation.
Hedges' correction uses the pooled standard deviation, plus a correction factor.
Glass's delta uses the sample standard deviation of the control (i.e., the second) group.

T-Test

Group Statistics

	Purchasetype	N	Mean	Std. Deviation	Std. Error Mean
TrustandSecurity	Hedonistic purchase	65	19.4000	4.59211	.56958
	Utilitarian purchase	67	20.2239	4.49519	.54917

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
TrustandSecurity	Equal variances assumed	.172	.679	-1.042	130	.150	.300	-.82388	.79095	-2.38869	.74093
	Equal variances not assumed			-1.041	129.651	.150	.300	-.82388	.79121	-2.38924	.74148

Independent Samples Effect Sizes

		Standardizer[a]	Point Estimate	95% Confidence Interval	
				Lower	Upper
TrustandSecurity	Cohen's d	4.54316	-.181	-.523	.161
	Hedges' correction	4.56958	-.180	-.520	.160
	Glass's delta	4.49519	-.183	-.525	.160

a. The denominator used in estimating the effect sizes.
Cohen's d uses the pooled standard deviation.
Hedges' correction uses the pooled standard deviation, plus a correction factor.
Glass's delta uses the sample standard deviation of the control (i.e., the second) group.

T-Test

Group Statistics

	Purchasetype	N	Mean	Std. Deviation	Std. Error Mean
Perceivedrisktotal	Hedonistic purchase	65	11.5231	3.99260	.49522
	Utilitarian purchase	67	11.6866	3.53000	.43126

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Perceivedrisktotal	Equal variances assumed	1.439	.232	-.249	130	.402	.803	-.16349	.65545	-1.46022	1.13324
	Equal variances not assumed			-.249	127.033	.402	.804	-.16349	.65668	-1.46294	1.13596

Independent Samples Effect Sizes

		Standardizer[a]	Point Estimate	95% Confidence Interval	
				Lower	Upper
Perceivedrisktotal	Cohen's d	3.76485	-.043	-.385	.298
	Hedges' correction	3.78675	-.043	-.382	.296
	Glass's delta	3.53000	-.046	-.387	.295

a. The denominator used in estimating the effect sizes.
Cohen's d uses the pooled standard deviation.
Hedges' correction uses the pooled standard deviation, plus a correction factor.
Glass's delta uses the sample standard deviation of the control (i.e., the second) group.

Group Statistics

	Purchasetype	N	Mean	Std. Deviation	Std. Error Mean
Learning cost total	Hedonistic purchase	65	8.1538	4.54914	.56425
	Utilitarian purchase	67	8.7463	4.56383	.55756

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Learning cost total	Equal variances assumed	.004	.951	-.747	130	.228	.457	-.59242	.79329	-2.16186	.97702
	Equal variances not assumed			-.747	129.903	.228	.457	-.59242	.79326	-2.16179	.97695

Independent Samples Effect Sizes

		Standardizer[a]	Point Estimate	95% Confidence Interval	
				Lower	Upper
Learning cost total	Cohen's d	4.55661	-.130	-.471	.212
	Hedges' correction	4.58311	-.129	-.469	.211
	Glass's delta	4.56383	-.130	-.471	.213

a. The denominator used in estimating the effect sizes.
Cohen's d uses the pooled standard deviation.
Hedges' correction uses the pooled standard deviation, plus a correction factor.
Glass's delta uses the sample standard deviation of the control (i.e., the second) group.

6.0 DISCUSSION

The aim of this study was to explore how consumers perceive mobile payment systems through different benefits and costs, and how these perceptions influence their decision to use such systems. According to this, the study also investigates how the purchase types (hedonic or utilitarian) moderate these relationships. The results revealed significant points that extend existing theoretical frameworks and offer clear practical implications.

6.1 Theoretical Implications

From a theoretical point of view, this study confirms and deepens our knowledge of how perceived convenience and learning effort become key factors in the consumer adoption process of mobile payment systems. The finding that convenience significantly and positively predicts the usage is consistent with well-defined models such as the Technology Acceptance Model (TAM), which underlines perceived ease of use as a fundamental factor of technology adoption. This shows that consumers continue to value time-saving and smooth interactions when considering using digital tools.

Interestingly, learning effort emerged as a crucial negative factor. This puts emphasis on cognitive simplicity, which is how easy or mentally difficult consumers believe a system is to use. The negative effect of learning effort suggests that even if technology has significant benefits like the convenience mentioned above and other benefits, its adoption process may seem difficult from a user's point of view because it can be difficult to understand or operate. This finding aligns with research in cognitive load theory and expands its relevance into the mobile payment area, proving that usability is not only about convenience but also about mental ability.

The study's findings of non-significant impacts are as beneficial. Speed, often assumed to be the most important benefit for most of the mobile technologies, did not significantly influence usage behavior. Likewise, perceived risk, which is considered a barrier in digital financial systems, did not show as a significant incentive in this context. This could be interpreted as the development of mobile payment systems and the increased digital capabilities of users. As mobile payment systems become a part of our daily lives, users may no longer evaluate them on attributes like speed or risk, instead going across defaulting to core expectations of security and efficiency. From this perspective, the study implies a shift in consumer evaluation scale, moving from concerns about novelty and safety towards expectations of seamlessness and low cognitive effort.

The hypotheses H3a and H3 b, which revealed whether purchase type (hedonic vs utilitarian) moderated the effects of perceived benefits and costs, were not supported. This result challenges the idea that hedonic or utilitarian shopping contexts impact how consumers assess similarly throughout contexts. Essentially, mobile payments may increasingly be seen as standard features rather than optional extras, utilised equally for luxury cosmetics and basic groceries. This theoretical implication refers to the normalization of digital payment behavior and the evolution of consumer expectations and shopping habits.

6.2 Practical Implications

From a practical perspective, these findings have significant importance for marketers, app developers, and financial service providers. The most important outcome of the results is that enhancing convenience and benefits in general and reducing learning barriers should be selected as top priorities for businesses. Consumers are more likely to adopt and consistently use mobile payment systems that feel easy and intuitive. This means investing in designs that put users at the center, ensuring intuitive navigation, and integrating them into experiences where they use these types of systems to guide them through key features without overwhelming them, and make the adoption process easier. Offering tutorials and simple language within the interface could make a meaningful difference in reducing perceived learning costs and help them to understand how this type of payment system works.

An additional practical insight lies in the relative influence of perceived risk and security. While these factors are certainly important, this study suggests they may not be the most important drivers of consistent use. Rather than focusing marketing efforts too much on security features, particularly in well-established markets, companies might be better served by giving attention to how the product makes life easier in many ways. Even if security doesn’t have to take center stage in the messaging, it must be strong in the background to enhance trust, and it doesn’t need to dominate the message.

Perhaps, one of the more surprising insights is the lack of necessity for context-specific strategies. Since no significant differences were found in how consumers decide to use mobile payment systems for their purchase decisions in hedonic versus utilitarian contexts, firms might consider investing in broad, unified messaging strategies to enhance the usage of mobile payments. Rather than segmenting campaigns based on consumer motivation, companies should focus on emphasizing the benefits such as convenience, reliability, and simplicity. By focusing on these benefits, companies could also decrease the impact of costs on consumers' minds about the mobile payment systems. Since this study reveals that the purchase type is not significantly important for consumers' preference to pay with mobile systems, it is more important to focus on all the benefits they can provide to create a smooth shopping experience.

Finally, these findings can help firms create broader product and service strategies. Firms seeking to increase adoption should not just enhance functionality but also reduce complexity, both real and perceived. For instance, this may involve simplifying the transaction process, reducing the number of steps to complete a payment, or providing multiple ways of user assistance. In this digital era, where attention is broken and time is precious, reducing friction is often the best way to persuade consumers rather than offering more features.

7.0 Limitations and Future Research

The study is based on self-reported data, which can be influenced by different types of biases or individual misinterpretation of the scenarios. Participants may not always accurately reflect their real-life behaviors or attitudes, especially when putting themselves into hyphothetical purchase scenarios. Moreover, the use of scenario-based stimuli may not capture all emotional or situational depth of actual shopping journeys. Real-life purchases are affected by many different variables like peer influence, urgency and mood, which are difficult to measure in controlled survey scenarios. Also, mobile payment usage may change over time depending on familiarity with the technology and the probability of new payment methods emerging. Lastly, the sample size of 131 participants may not fully represent the diversity of the broader consumer population.

In the future, researchers might think about conducting field tests or live behavioural tracking techniques to watch real-time mobile payment behaviour. Better insights into the psychological and emotional aspects of payment methods may also be obtained by holding focus groups or qualitative interviews. To better understand the general population, it may also be beneficial to expand the sample. Future research could also look at how individual differences like financial anxiety and trust propensity affect the relationships this study examined. Finally, investigating how mobile payments and impulse buying are related may provide more understanding of the psychological effects of these systems, particularly in light of the growing worry about excessive spending made possible by these systems.

8.0 Conclusion

Mobile payment systems keep reshaping the shopping habits of consumers and interact with technology, understanding what the main elements are for the adoption process. This study intended to investigate how perceived benefits, and perceived costs influence consumers' decision to prefer to use mobile payment systems, and whether the context of the purchase (hedonic vs utilitarian) modifies these effects.

From a strong theoretical foundation of the Technology Acceptance Model and consumer behavior literature, this research proposed and tested a conceptual framework supported by empirical survey data that was collected from 131 participants. These findings provide some valuable insights.

Firstly, the study confirms that perceived convenience is a significant and positive predictor of mobile payment systems use, while learning effort is a strong cost. These results showed that the most effective and successful mobile payment systems are those that have intuitive, user-friendly interfaces and that contain simple learning processes. Surprisingly, speed, trust/security, and perceived risk were often emphasized in the literature but did not significantly influence usage behavior in this

context. This may reflect a change in consumers' point of view: some aspects could be taken for granted as mobile payments become more widespread.

Secondly, the moderating effect of purchase type (hedonic vs utilitarian) was not supported. Consumers evaluated the benefits and costs of mobile payment systems similarly, regardless of the contextual motivation behind their purchase decision. The results indicate that there could be a potential normalization of mobile payment behavior, suggesting that users nowadays approach these systems as standard tools in their shopping journey, with the increasing adoption of these types of technologies day by day, rather than in the purchase context.

Overall, this research contributes to both theory and practice. It provides empirical support for the ongoing importance of usability in digital payment adoption while challenging assumptions about the influences of purchase motivation. For marketers and financial institutions, the message can be said like: success behind building these systems that are easy to adopt and effortless to use, without looking at what consumers are buying.

In a rapidly evolving digital era, the implication of this study goes beyond payments to any consumer technology where convenience and cognitive effort are the main factors. By deepening our understanding of how users assess and adopt these tools, this research offers an important step forward in designing technology that genuinely serves people in a meaningful, efficient, and frictionless way.

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