The Impact of Digital Payments on Consumer Spending Habits: A Case Study of Young Adults Aged 18-25 in Kerala, India

MSc in Accounting and Finance

Griffith college

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2024

Candidate Declaration

I, Riya Rose Paymmel Rappai, hereby certify that the dissertation entitled "The Impact of Digital Payments on Consumer Spending Habits: A Case Study of Young Adults Aged 18-25 in Kerala, India," submitted for the degree of MSc in Accounting and Finance, is the culmination of my own work. Throughout this research, I have diligently adhered to academic integrity standards, ensuring that any references to the work of others are duly acknowledged.

In the pursuit of this dissertation, I have conducted thorough research and analysis, drawing upon various scholarly sources and methodologies. Any contributions from external sources have been appropriately cited, recognizing the intellectual property of others. I affirm that this document represents my original insights, interpretations, and conclusions derived from my personal academic endeavors.

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Acknowledgements

I would like to express my sincere gratitude to Mildred Brown-Houston for her exceptional guidance and unwavering support during the course of this research. Her thoughtful feedback and readiness to answer my many questions have been crucial in shaping the direction and quality of this study. I am also truly thankful to all the participants who took part in the survey, as their contributions and insights have significantly enriched this research.

As I conclude my studies, I want to acknowledge the enriching learning environment and the opportunities for personal and professional growth that this institution has provided. The knowledge and experiences gained during this program have been invaluable.

Lastly, I would like to thank my family and friends for their constant support and encouragement. Their understanding and motivation have been fundamental to my success throughout this academic journey.

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List of Abbreviations

UPI - Unified Payments Interface

NEFT - National Electronic Funds Transfer

RTGS - Real Time Gross Settlement

CAGR - Compound Annual Growth Rate

NETC - National Electronic Toll Collection

SPSS - Statistical Package for the Social Sciences

USD - United States Dollar

COVID-19 - Coronavirus Disease 2019

Abstract

The Impact of Digital Payments on Consumer Spending Habits: A Case Study of Young Adults Aged 18-25 in Kerala, India

Riya Rose

This dissertation investigates the effect of digital payment systems on the spending habits of young adults aged 18-25 in Kerala, India. The main goal is to examine the ways in which digital payments affect consumption and monetary practices of this population. In this study, the quantitative research approach was employed hence the structured questionnaires were responded to by 158 participants out of which 100 were valid responses and were analyzed using the SPSS software. This research also concludes that young people have benefited from digital payments in making the transactions easier going by the fact that 79% of the participants preferred digital methods of payment to cash. However, this convenience of digital payment does not even create a significant shift in the total expenditure ratio. The perception of security in digital payments is also positive though it does not influence the spending of the respondents and was also liked by 53% of the respondents. This was done in a bid to show that even though security is essential for adoption, it is not sufficient to influence change in the financial behaviour of people in the long-run. Some important discoveries indicate that trust and reliability in mobile payments are critical drivers of spending. It is also evident that participants who have positive attitudes towards reliability of digital payments exhibit greater shifts in their consumption behavior than those who are concerned with the security of the payment methods. Also, there is the convenience of buying goods and services online and eating out due to the availability of digital payments. Nonetheless, entertainment spending reduces slightly, and this shows that digital payments have a differential influence on spending. Thus, it is important to conclude that, despite the increased convenience and features, such as expense tracking, digital payments have a multifaceted effect on spending behavior. The research emphasize on the trust regarding the digital payment systems and it is also indicating that more research could be done on the long term behavioral modification and the impact of digital payments on various consumer segments.

1 INTRODUCTION

In this chapter, the focus will be on providing a comprehensive overview of the research study on digital payments and their impact on spending habits among young adults in Kerala. This chapter will present the research objectives, explain the relevance of the study, and describe the bounds of the study. Further, the context of the methodology and the research design shall be presented to give the reader a better understanding of the research process. To enhance understanding of the terms used, definitions will be given while an overview of the structure of the dissertation will be given before proceeding to the subsequent sections.

1.1 Research Background

In India, the adoption of digital payment systems has grown rapidly over the last few years due to technological innovation, government support, and the rise in internet usage (Badak et al., 2024). The Digital India program launched in July 2015 and the decision to scrap high value currency notes in November 2016 has further led to the use of the digital payment systems (Fouillet, Guérin and Servet, 2021). The growing popularity of digital payments has also been boosted by the government's agenda towards a cashless society and the growth of the Unified Payments Interface (UPI) by Kumar and Gupta, 2023. Thus, as India dominates nearly the 40% of real-time digital payment methods, the emphasis is made on increasing the UPI's impact on the global level (Menon, 2024). This has placed India in a strategic position in global digital payment innovation, peer to peer financial linkages and potential to set the tones in the global payments system (Menon, 2024).

Kerala's young adults can be considered as a key target group to study about digital payment as they are tech-savvy and receptive to innovation in the financial sector. This age group has a predisposition towards digital solutions owing to their familiarity with technology and the internet as noted by Wan Nawang and Shukor (2023). This is made easier by the high Smartphone adoption and Internet usage among young adults as highlighted by Cariaga et al., (2023). This demographic is bound to spend differently from the previous generations because they are the digital natives who often use digital payment platforms.

Digital payments can shift consumer spending patterns to a great extent by transforming the manner in which transactions are executed and regulated. The flexibility of using digital payments lead to over expenditure since consumers make payments through digital platforms without much struggle (Bhoopathy and Kanagaraj, 2023). Research has also indicated that due to the convenience

and availability of the digital payment systems people tend to spend more without considering the consequences because they do not have to account for every cent they spend (Bhoopathy and Kanagaraj, 2023).

Furthermore, digital payments help in the collection of data regarding the consumers' expenditure which can help in the design and targeting of marketing techniques and financial products. It can also affect consumers' behavior through providing specific promotions and discounts according to the spending record (Ates and Odzic, 2023). Therefore, the electronic payments do not influence the purchasing tendencies only, but also the decision-making actions within financial activities, as the consumers have more data to consider.

Kerala state in southern India is chosen as the field site since it boasts relatively high literacy levels and compared to other states in the country, relatively high incomes. The state's liberal attitude towards the uptake of technologies and financial awareness offer a suitable context for identifying the impact of digital payments on the young adults (A. Anandalakshmy, 2023). The ongoing efforts of the Kerala government to encourage digital transactions like the introduction of the digital literacy programs and support to Fintech startups also establish the importance of this study further (Menon, 2023).

1.2 Research Aim

This study aims to examine the extent to which digital payments impact spending behaviors among young adults of 18-25 years in Kerala, India with emphasis on variations in spending behaviors and the association between digital payments and behaviors.

1.3 Research Objectives

1. **To analyze the perception of young adults in Kerala towards the impact of digital payments on their spending habits**

The objective of this work is to analyse the perceived impact of digital payments among the youths in Kerala. Through the analysis of these perceptions this research will be able to identify the psychological and behavioral change, with regards to the use of digital payments. In perception studies, the focus is often made on the attitude of the users towards the technology and its effects on their life since they define the level of engagement with these technologies (Bitto Urbanova et al., 2023). For instance, even though consumers may have perceived digital payments as efficient they may have some level of security concern or over control as noted by Bhoopathy and Kanagaraj

(2023). With the help of this analysis, it will be possible to identify young adults' impression and expectation regarding digital payment systems.

2. **To examine the changes in spending patterns across various categories (e.g., retail, dining, entertainment) among young adults in Kerala following the adoption of digital payment apps**

This objective is aimed at determining the effects of digital payment on the expenditure of the several sub-sectors such as retail, dining and entertainment. Therefore, the aim of this research is to define tendencies of spending changes and to understand if digital payments enhance or reduce consumers' expenditures in the fields mentioned above. For instance, the use of digital payment tools might enhance the consumption frequency in retail because of the convenience of the tools used; dining and entertainment might be influenced by promotions and discounts offered through the digital channels (Reinartz, Wiegand and Imschloss, 2019). This detailed analysis will enable us understand how digital payments are transforming consumption behaviour and options among the young adults in Kerala.

3. **To study the relationship between the frequency of digital payment usage and the spending habits of young adults in Kerala**

This objective will aim at establishing the correlation between the extent of use of digital payment and the amount spent by young adults. By this, the research will find out whether the increased use of the digital payment options results in either: Impulsive buying or compulsive buying (Bhoopathy and Kanagaraj, 2023). This is since constant engagement in digital payments alters monetary behaviours including the ability to recall spending bounds or cause people to spend more due to the availability of quick transactions (Putrevu and Mertzanis, 2023). Awareness of this kind of connection will provide important knowledge about effects of using digital payment systems on daily spending patterns and budgeting.

1.4 Research Questions

1. How do young adults in Kerala perceive the impact of digital payments on their spending habits?
2. What changes have occurred in spending patterns across different categories among young adults in Kerala after adopting digital payment apps?
3. How does the frequency of digital payment usage affect the spending habits of young adults in Kerala?

1.5 Research Problem Statement

Digital payment systems have become popular over the past years in making financial transactions around the world, however, there is still limited knowledge on how it has influenced consumers' behaviors especially the youths of particular region such as Kerala in India. The research problem is focused on understanding the behavior change of spending and financial conduct in a society where the use of digital payment apps has become the new normal of a particular age group. Despite the benefit of using digital payments, the worry arises that the use of such payment might shift the spending habits of consumers, and therefore might lead to a change in expenditure or budgeting (Bhoopathy and Kanagaraj, 2023). Moreover, digital payment frequency and spending pattern correlation is another area, which has not been explored significantly and the existing studies mostly describe the general trend instead of specific regional characteristics (De La Rosa and Tully, 2021). Solving this research problem is important in order to comprehend the multifaceted impacts of digital payment systems on young adults' financial behaviours in Kerala and the prospects and concerns linked with such systems' use.

1.6 Significance of the Study

This research is important as it delivers specific information regarding the effect of digital payment systems in the expenditure pattern of young adults in Kerala. As a result of advances in technology, it is important to discern the impact of innovations in payments on financial behaviour for consumers and policy makers (Bhoopathy and Kanagaraj, 2023). Thus, the results of this research containing the comparison of spending dynamics and the correlation between payment frequency and financial behaviors will provide the useful information for financial institutions, companies and government agencies that develop the strategies for the interaction with this group of people. Further, it contributes to understanding young adults' needs and behaviors when using digital payment tools and developing better digital payment solutions and financial literacy programmes that can enhance the overall financial management of those customers and, hence, improve consumer protection.

1.7 Scope and Limitations

The limitation of this study is that it only compares the spending pattern of young adults aged 18-25 in Kerala, India, with the digital payments option. The emphasis is made on the perception, shifts in consumption and expenditure by category, and the correlation between the frequency of using digital payments and expenditure. However, there are limitations to the current study. The

sample is limited to the state of Kerala only which may not be true for other regions which might have different level of digital payment acceptance or different economic status. Also, the study is based on the respondents' own reports, and such data are rather prone to bias and measurement errors. The cross-sectional design eliminates the possibility of studying spending behavior and the usage of digital payment over time.

1.8 Research Methodology Overview

This study utilizes a quantitative approach with a structured questionnaire to collect data from young adults in Kerala. The research adopts the positivist paradigm involving the empirical investigation of established theories and hypothesis using quantitative techniques (Saunders et al., 2019). The deductive approach is used where the theoretical frameworks are formulated and tested through empirical evidence. The research design is descriptive because the study intends to assess complex patterns and associations. The data is collected using online questionnaires emailed and posted on social media platforms so that participants can easily get to them. The approach used in the analysis will be to estimate different factors that are associated with the use of digital payment and expenditure, thus offering a comprehensive view of their effects (Collis & Hussey, 2013).

1.9 Structure of the Dissertation

The dissertation structure is as follows in order to give a broad overview of the chosen research question. Chapter 1 provides an overview of the entire study which includes the background to the study, research problem, justification of the study, the area of study and the research methodology. Chapter 2 provides a review of literature, which discusses the prior work concerning digital payments and its impact on the consumers. Chapter 3 outlines the research methods and procedures used in the course of the study, such as the methods of data collection and analysis. Chapter 4 explains the research findings with a focus on the quantitative analysis of the data. Chapter 5 elaborates the implications of these findings and relates them to prior research and theory. Last, Chapter 6 presents the conclusion to the dissertation research where the author synthesizes the major findings, considers the study's limitations and offers recommendations for future research and business use (Saunders et al., 2019).

1.10 Definitions of Key Terms

Digital Payments: It refers to the transfer or purchase of goods and services through the use of a device such as smart phones, the internet for buying goods and services, online banking and other forms of digital transactions (Franciska and Sahayaselvi, 2017).

Spending Habits: Personal consumption expenditure habits include behaviour and trends in how people distribute and spend their money in different categories of consumption including retail, dining and entertainment (Kumar et al., 2022).

Young Adults: People from 18 up to 25 years' old that can be considered one of the most innovative generations with higher rates in adopting new technologies as well as changing financial behaviors (Lee, Skillen, and Nasraldeen, 2022).

Adoption of Digital Payment Apps: The degree to which consumers employ and incorporate DPAs into their financial payments, which is an indication of consumers' awareness and dependency on technology (Putrevu and Mertzanis, 2023).

Frequency of Usage: The frequency of using digital payments, from daily to occasional and how it affects people's purchasing patterns and budgeting (De La Rosa and Tully, 2021).

1.11 Summary

In conclusion, this chapter has presented the research objectives, the focus of the study, and the research methods of the study on the digital payments and young adults' expenditure pattern in Kerala. In order to avoid confusion as to what is being investigated, key terms have been provided to define the scope of the study, and to define the layout of the dissertation for the investigation. The subsequent chapters will incorporate further examination of literature, description of methodology, and elaboration of the results that will help to determine the role of digital payment in shaping consumer behaviour. This approach helps to provide a detailed analysis of the topic under research and thus brings out new knowledge to the field.

2 LITERATURE REVIEW

This chapter presents the literature review on the influence of digital payments on consumer behaviour especially the youth in Kerala. Digital payment systems have affected the overall financial transaction processes and various aspects of consumers' behavior. This review will also focus on the perception of young adults towards digital payment, the shift of spending behavior across the various categories and the tendency between the frequency of use of digital payment and spending. Through integrating the available research and theoretical frameworks, this chapter seeks to offer a systematic view of how the adoption of digital payments impacts consumer behaviours in the modern world.

Weaknesses of Existing Research

Existing research on digital payments often emphasizes broad trends and general impacts, but several weaknesses limit their applicability. Many studies focus primarily on the overall adoption rates and technological advancements without delving into the nuanced ways digital payments influence specific consumer behaviors across different demographics. For instance, research tends to overlook the diverse impacts of digital payments on various spending categories and the specific role of digital literacy in shaping spending habits. Additionally, while there is a wealth of data on the overall growth of digital payment systems, less attention is paid to regional variations and the unique challenges faced by different consumer segments, such as young adults in specific geographic areas. The existing literature also often lacks longitudinal studies that track changes in consumer behavior over time, particularly in response to major events such as economic disruptions or technological innovations.

2.1 Overview of Digital Payments

According to Merriam-Webster, money means anything that can be used as a medium of exchange in satisfaction of a debt or as payment, including coins, banknotes, and other forms of stamped metal (Merriam-Webster, 2019). Nevertheless, the meaning of money has changed dramatically over time because of the technological advancements, ranging from barter, coins, paper notes, e-money to a current cryptocurrency (Peneder, 2022). In the view of the European Central Bank (ECB), e-money means any monetary value stored electronically on devices including cards or computers and is capable of being used by others than the issuer in order to pay for goods and services. This change has been more visible in the developed economies whereby the transition has been from paper-based to electronic-based payments (European Central Bank, 2019).

Digital payment can be described as any kind of payment that is done electronically through the use of the internet or other related electronics means without the use of physical cash. The payer and payee both operate on a digital platform for the transaction, for example using a portable device with a wireless connection to pay for a product, or through other 'means of communication technology' (Dahlberg et al., 2008). Digital payment also encompasses electronic transactions via the internet, such as payments by credit or debit card, whether online or in person at a supermarket or other retail establishments (Suma and Hema Divya, 2018).

The characteristics of new digital payment instruments are akin to traditional paper-based methods. E-money, a relatively new product in India, includes prepaid stored value cards (also known as "electronic purses") and prepaid software-based products, often referred to as "digital cash" or "network money." These software-based products utilize computer networks like the internet (Papadopoulos, 2007). In India, e-money comprises Prepaid Payment Instruments (PPIs) issued as wallets and cards. This can be particularly beneficial for a cash-heavy economy like India by reducing costs associated with managing, storing, and transporting cash, as well as printing and minting currency. E-money could improve operational efficiency in the financial sector, expand banking services to underserved rural and urban areas, and support e-governance initiatives. The widespread adoption of e-money hinges on its ease of use, cost-effectiveness, security, privacy, and the availability of supportive infrastructure. The Payment Systems Vision 2019-21 emphasizes innovation, financial inclusion, cybersecurity, customer protection, and competitiveness (RBI, 2021).

The Indian government's launch of the "Digital India" initiative on July 1, 2015, aimed to transform India into a digitally empowered society and knowledge economy. This initiative is rooted in the National e-Governance Plan (NeGP) launched on May 18, 2006, which initially had twenty-seven Mission Mode Projects (MMPs) and eight components adding up to thirty-one MMPs in 2011 (Deloitte, 2015). Digital payments in India have been on an upward trend especially after major incidences such as demonetization in November 2016 and the COVID-19 pandemic. Research indicates that there has been an increase in the use of digital payments and India was ahead of countries such as China and Italy in the use of payments during lock-downs (Yadav & Das, 2024). In this perspective, the evaluation of this progress is essential for the study of the digital payment environment in the country.

Studies by a number of scholars provide a perspective of various dimensions of digital payments in India. Achutamba et al. (2022) established that while COVID-19 has indeed affected the

payment system in some way, the shift made was from the traditional to the digital payment systems though the users have some trust deficits. The study revealed that the pandemic was a trigger to the use of digital payments, but some government actions were needed for developing trust (Achutamba & Hymavathi, 2022). In a study done by Angamuthu (2020) on the progression of the digital payments from the year 2012 to the year 2019, the author found that there is a general increase in the total number of transactions that were made in the year 2019 and the total value of the transactions that were made in the same year with IMPS and M-Wallet services leading in growth. Simplicity and affordability of engaging in transactions electronically are some of the factors that are putting India on the path towards a cashless society (Angamuthu, 2020).

According to Pal et al. (2020), the mobile payment technology plays a crucial role in the sustainable development of the economies in which it is used, especially for integrating small-scale vendors and rural areas. The study noted that while payment applications have used QR-code techniques for reaching out to local sellers, the small scale merchants need more assistance in equal competition with e-commerce giants (Pal, De', & Herath, 2020). The development of digital payments for businesses of different sizes was described by Ravikumar et al. (2020) and authors mentioned that despite India's progress towards the cashless society, there is still a long way to go. Their prior work conducted in 2019 pointed out that big digital payments and retail electronic payments may have an impact on economic growth through reducing transaction cost and improving convenience even though the two types of payment do not have a direct association with GDP growth (Ravikumar et al., 2020).

The need for the changes and integration of digital payments in India is important not only for the purpose of increasing financial inclusion as well as operational efficiency but also for preparing the economy for the future shocks. The sustainability of such interventions remains a function of ongoing innovation, appropriate infrastructural development, and solid systems to tackle security, privacy, and accessibility issues. Digital payments thus present a viable way towards a more efficient and more inclusive FI model but concerns in terms of trust, infrastructure, and digital literacy still have to be overcome in order to unlock its full potential.

2.2 Digital Mobile Payment Applications

Digital mobile payment applications have greatly impacted the financial transaction worldwide and this change has been most significant in India according to Gupta (2024). Among the first of such systems, the National Electronic Funds Transfer (NEFT), starting from the year 2005, provided easy online transfer of funds between NEFT linked bank accounts. Real-Time Gross

Settlement (RTGS) came into existence to handle the high-value inter-bank transactions that were settled instantly and finally within a given day at a comparatively higher cost due to the real-time processing as compared to the batch processing of NEFT (CARD91, 2023).

In India, the Digital India Campaign initiated in 2015 for creating awareness about CASHLESS SOCIETY helped in promoting digital payments ((Joshi and Desai, 2017). This initiative of the government brought banking cards, mobile wallet, Aadhaar enabled payment system and prepaid payment instruments under the National Payments Corporation of India (NPCI). Subsequently, the Unified Payments Interface (UPI) extended the scope by allowing multiple bank accounts and merchant payments through a single mobile application thereby increasing the ease of use and usage (CARD91, 2023).

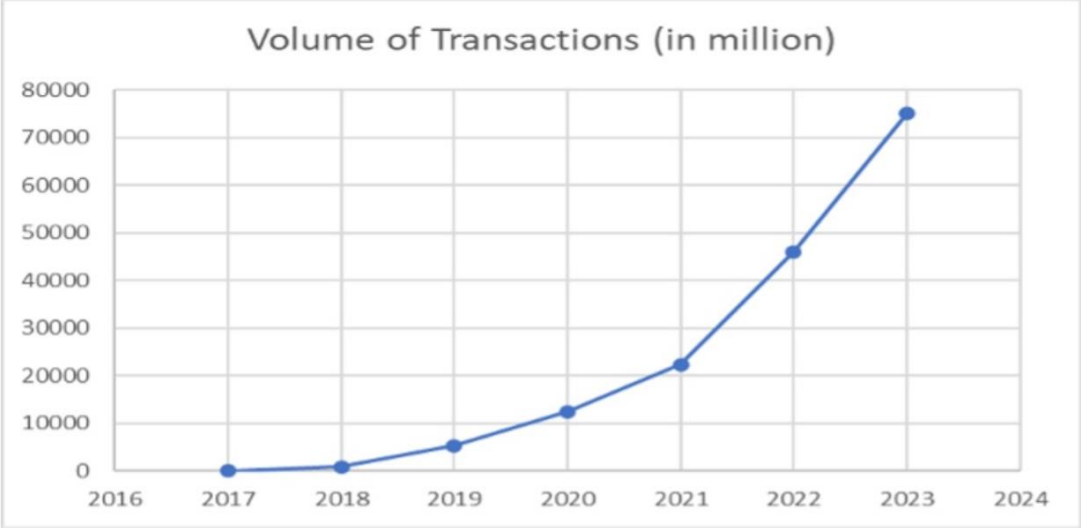

Figure 1: Volume of Transaction Through Unified Payments Interface (CARD91, 2023)

The government's demonetization drive in November 2016 proved to be a game changer and led to drastic increase in the adoption of digital payments. The scrapping of large currency notes made people switch to digital payments, and such payments have never seen such a phenomenal growth. Digital wallets such as Paytm and Mobikwik came into limelight, Paytm's customer base increased from 125 million to 185 million within three months of demonetization (Singh and Rana, 2017). Digital payments emerged as a potential replacement for cash following government and private sector initiatives to push various forms of digital payment systems including the BHIM app developed by NPCI (Manocha et al., 2019). Demonetization had a rather complex effect on the use of digital payments. Research found that debit card usage grew substantially and e-wallet transactions also rose, which pointed towards a change in the consumer behaviour (Agarwal et al.,

2018). The flow of money in the economy enhanced and the clarity in the monetary transactions also enhanced. Also, NEFT and RTGS transactions increased in volumes as well as value which pointed towards the digital economy shift (Kulkarni and Varma, 2021). Nonetheless, this surge was not sufficient enough and digital literacy remained a problem. The introduction of Reliance Jio in 2016 which provided access to the internet at a very low cost had a huge impact in increasing the literacy of the internet and embracing it among the population. Jio enabled the usage of social media, networking sites and digital payments and contributed largely to the rise in the digital transactions (Mishra and Vyas, 2018).

The COVID-19 pandemic even faster the development of digital payments as many consumers preferred to avoid physical touching of the money (Chaudhary et al., 2023). The psychological factor of feeling the cash as a potential carrier of the virus led more consumers to use Apple Pay and Venmo. Therefore, the digital payment transactions in India rose by nearly double in January and February of 2020 and continued to rise through the rest of the year. Google Pay, PhonePe, BHIM, Paytm are some of the e-wallets that have assumed crucial roles in this process of digital payment. Google Pay and PhonePe both came into existence in the year 2015 and have been providing safe and effective transaction options for millions of customers. BHIM, developed by NPCI, simplifies UPI transactions and promotes financial inclusion (Kumar, 2020). Paytm, a pioneer in India's digital payment space since 2010, has diversified its offerings to include e-commerce and financial services, further embedding digital payments in everyday transactions (Br and Rao Nethravathi, 2021).

Studies have consistently shown the benefits and convenience of digital payments over traditional methods. Digital payments are time-saving, accessible around the clock, and often come with rewards or cashback offers (Ghosh, 2021). However, the transition to a fully cashless society faces challenges, such as the need for enhanced digital literacy and addressing security concerns. Researchers have emphasized the importance of consumer perception and safety in digital payments, noting that these factors significantly influence the adoption rates (Revate, 2021). Digital mobile payment applications have profoundly impacted the financial landscape in India. Initiatives like the Digital India Campaign and demonetization, coupled with technological advancements like UPI and widespread internet access, have driven the adoption of digital payments. The COVID-19 outbreak has exacerbated this trend and this is driven by the need for non-contact transactions. However, there are many opportunities that are present in the Indian digital payment market that will foster further growth of this sector in the near future.

2.3 Consumer Spending Habits

Mobile wallets and contactless cards are some of the digital payment systems that have impacted heavily on consumer spending. The flexibility that comes with digital payments is usually linked with a rise in consumer expenditure (Bhoopathy and Kanagaraj, 2023). A mobile wallet has changed the way consumers spend their money as it is easier and more convenient than any other method. San (2024) has used this transformation in the context of the Myanmar youths' impulse purchase behavior. Using cross tabulations, the study establishes that there is a strong positive correlation between the use of mobile wallet and impulse buying. This finding supports the previous study that suggests that due to the convenience of the mobile payments, people develop impulse buying behaviors (Lee, Gan and Liew, 2022). This is well demonstrated in the mobile payments where the consumers can carry out transactions within a short span of time hence spend more time in the expenditure process. This finding has a general support of consumer psychology whereby any effort that simplifies the buying process normally boosts expenditure.

At the same time, the platforms for digital payments also provide sections that make for financial literacy. San (2024) in the research proved that features such as real-time expense tracking within the context of digital wallets for consumers can improve financial literacy and possibly result in better spending behaviors. These tools assist consumers in avoiding overspending and making the right decisions while spending their hard-earned money. This shows the two extremes of the technology of digital payments: on the one hand, it encourages the spending of money on impulse while on the other end, it encourages people to be responsible with their money. As seen from the above findings, the use of digital payments has different effects on the total spending of consumers in different consumer segments. In their systemic review of consumer adoption of digital payments, Lohana and Roy (2021) pointed out that factors such as age, income and education level determine the consumer's ability to use digital payments. It was also assumed that younger consumers, who are more familiar with technology, will be inclined to use digital payments and will engage in many more types of transactions than the older consumers. Income levels also play a part; people with higher income may gain a lot from the convenience and financial products offered by the digital payment systems.

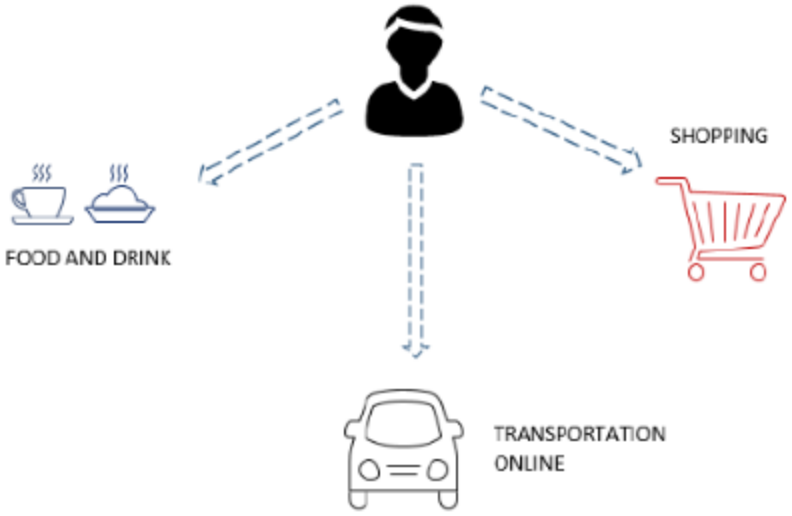

Figure 2: Activities with Digital Payments

For instance, Jeyadevi J and Duraisamy (2023) have examined the changes in consumer expenditure behavior after the integration of DPMs through cross-sectional analysis. Such investigations tend to show that as consumers get acquainted with digital payments, their spending becomes less erratic, thus painting the picture of these innovations being fully incorporated into consumers' financial lifestyles. Consumers may learn to spend better and become more comfortable with digital transactions, which may lead to long-term changes in behaviour.

The economic consequences of such a shift in payment methods is also felt in the following ways. Singh and Rana (2017) looked at the effect of demonetization in India which resulted to increased use of digital wallets. Not only that, this shift changed the spending power of the consumers and it also contributed towards foreign investment as well as financial liberalization. For similar reasons, Zandi et al. (2016) explained that electronic payments have positive macroeconomic impact by boosting the GDP and employment, which highlights the economic gains from embracing digital payments.

The review of the literature shows that consumers' expenditure is influenced by digital payment methods in a complex manner depending on convenience, financial literacy, age, gender, privacy, and economic conditions. This knowledge is essential for policy makers and companies that wish to shape consumers' behaviour regarding the usage of digital payments.

2.4 Perception of Consumers towards Digital Payments

The evolution of wireless and internet technologies has had a major influence on the evolution of the digital payment systems, thus changing the way financial transactions are completed (Hazar

and Babuscu, 2023). According to Gao and Waechter (2017), the intention of the use of digital payment systems depends on perceived security of those payment systems. This is supported by Linck et al. (2006) who stressed that the perceived security is a basic concept in consumer's decision-making processes. Zhou (2011) provides further evidence to this effect stating that perceived security risks were among the top factors that deter consumers from engaging in e-commerce activities. However, as this paper has highlighted, these security problems remain as key factors that hamper the adoption of such technologies.

Another factor is the attitude towards the use of digital payment systems, including the perceived ease of use and perceived usefulness of the methods. According to Gunawan et al. (2019), perceived ease of use which refers to the user's perception that the system is easy to interact with is an essential determinant of consumer acceptance. In the same vein, Bolodeoku et al. (2022) provide a valuable input to this discussion by offering a definition of perceived usefulness as the degree to which a technology is regarded as increasing individuals' effectiveness. This idea is supported by Phonthanukitithaworn et al. (2015) that stated that users' perceived usefulness greatly influences the system, thus, influencing the usage of mobile payment services. It is therefore fundamental to understand how the two factors interact to determine the consumer's attitude towards digital payments.

Privacy issues also emerge as key factors that influence the consumers' perceptions. Sahi et al. (2022) also both stress that the problems of privacy are usually more critical than those of security. Such view is in line with Wu et al. (2012) who observe that privacy policies affect the level of trust among users. Along the same context, Amoroso and Magnier-Watanabe (2012) also emphasize that there is a need to consider privacy issue when developing confidence in the mobile wallet. This has been attributed to a discernible shift in the understanding of the importance of privacy as a factor that has to be combined with security in order to make services more trustworthy and thus used by a larger populace.

Newer research suggests that there has been a change in consumer behaviour towards adopting digital payment systems especially in developing nations. Singh and Rana (2017) point out that the use of digital payments has been on the rise in India due to the government in cooperation with technology firms. This trend is further supported by Suma and Hema Divya (2018) where they explain that demonetization and digital initiatives have helped in increasing adoption of digital payments. These developments indicate that although the technological advancements make the digital payments to be more efficient in their functionality, the issues of security and privacy which

are critical in the adoption of the digital payments must be solved for the consumers to embrace them fully.

Perceived security, perceived convenience, perceived privacy as well as perceived usefulness of digital payment systems influence the general perception of consumers. Thus, it is obvious that the problem of security and privacy should remain the focus of attention, as the further development of digital payment systems depends on the creation of consumer confidence.

2.5 Young Adults Spending Patterns Across Different Categories

Young adults' spending patterns in Kerala reflect significant trends in consumption influenced by various socio-economic factors. As per the data collected in 2018 it can be observed that Indian youth had a significant part of their disposable income for leisure and personal products. About 53% of their expenditure was on what can be classified as 'eating out' which was 16% 'clothes' 16%, 'soft drinks & ice creams' 14% and 'snacks/confectionary' 7%. Accessories like footwear, belts, and jewelry consumed an additional 7% of their income, while only 5% was spent on education, often subsidized by their parents (Krishnadas, 2018). This data underscores a clear preference for discretionary spending among young adults, with a dominant focus on leisure and personal consumption.

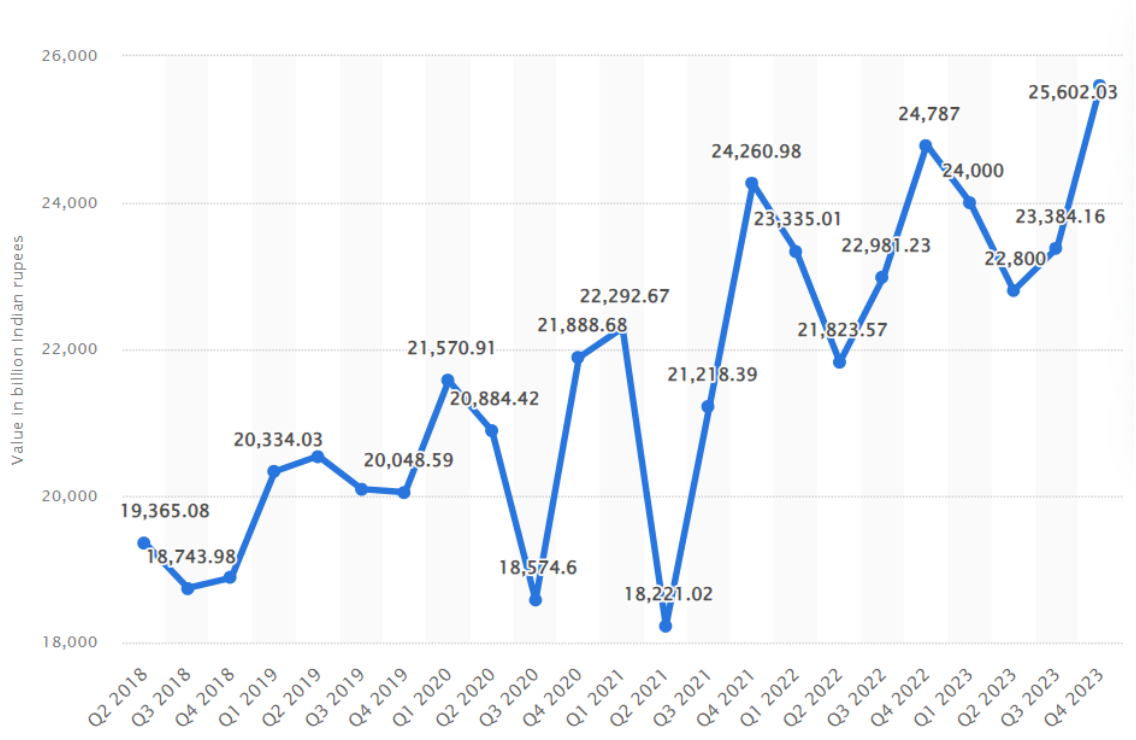

Figure 3: Consumer spending in India from 2nd quarter of 2018 to 4th quarter of 2023(in billion Indian rupees) (Rathore, 2024)

Consumer spending trends in India from 2018 to 2023 reveal that digital payment methods, particularly Unified Payments Interface (UPI), have significantly impacted spending behaviors. Manya Rathore (2024) highlights that consumer spending across India reached 25.6 trillion rupees by late 2023 (Rathore, 2024), with a notable 74.2% of survey participants reporting increased spending due to UPI. This indicates that the convenience of digital payments has likely facilitated more frequent and possibly higher-value transactions among young adults (Dev, Gupta and Kumar, 2024). The majority of respondents (91.5%) expressed satisfaction with UPI, and 95.2% found it convenient, suggesting that digital payment systems are integral to contemporary spending habits ((Dev, Gupta and Kumar, 2024).

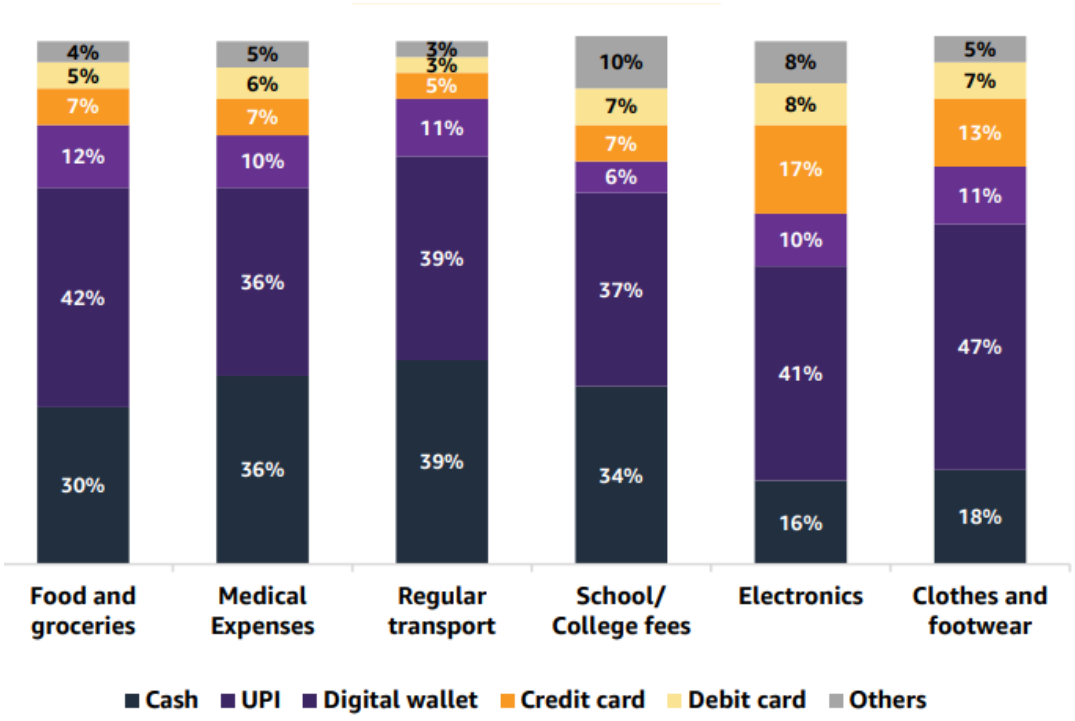

Figure 4: Preference of various modes of payment for different spend categories (% of respondents) (Sharma et al., 2024)

Mintel research (2023) further supports these findings by noting a trend among younger consumers towards spending on indulgent items like fashion and electronics. Nevertheless, 68% of the respondents from the group of urban males of Gen Z claimed that they were using money on clothing and accessories, whereas 60% of them expected to cut this category of expenses in favor of dining out or personal care. This shift implies a complex approach to consumerism, whereby impulse and hedonistic purchases, life choices determine expenditure (Mintel, 2023).

In sum, these studies together reveal that young adults in Kerala and India are characterized by dynamic spending patterns that are influenced by the use of digital payments and economic conditions. It stays mostly on the non-essential and luxury items pointing at the general tendencies in the consumption driven by technology and wealth.

2.6 Frequency of Digital Payment Usage in India

India has seen an extensive growth in the digital payment system and this has been made possible by the existence of various and friendly payment channels. According to the Statista report of fiscal year 2024, India crossed 164 billion digital payments which were quite high as compared to previous years. This growth places India as a leader in the provision of digital transactions as compared to countries such as Brazil, China and South Korea (Sharma et al., 2024). Digital payment platforms such as BHIM-UPI (Bharat Interface for Money - Unified Payments Interface), IMPS (Immediate Payment Service), and the NETC (National Electronic Toll Collection) system have become an inseparable part of the Indian economy. The use of these technologies has eased the payment process and improved the overall financial access (Sharma et al., 2024). For instance, BHIM-UPI has provided instant payment through mobile phones through mobile number or virtual payment address and Banking through a single application. Likewise, the Bharat Bill Payment System (BBPS) provides an interoperable bill payment system through various channels and the NETC system provides non- contact toll payment using Radio Frequency Identification (RFID).

It is interesting to note that the change from cash to digital payments has been quite phenomenal in India. Thus, in 2022, the share of digital transactions reached 46 percent of the total compared to the 90 percent that was carried out in cash in 2017. This shift underscores a broader trend: P2P digital payments, which had a CAGR of 46 percent between FY19 and FY24, were valued at USD 3. 6 trillion in FY24, and the forecast showing possibilities for the figure to reach USD 7 trillion by FY30 (Sharma et al., 2024). Several factors have been attributed to the increase in the use of digital payments as explained below. The advancement of cheap and easily accessible internet and Smartphones along with the government step such as demonetization and implementation of UPI has made the digitalization more commonplace. India internet users increased from around 210 million in 2013 to almost 918 million in 2023. The constant improvements in the quality of the connection, such as the shift to 4G and the availability of complimentary MBs in the data tariffs, only helped this growth continue (Sharma et al., 2024).

However, there are still some barriers such as, financial fraud and problems of connectivity. Similarly, about 49% of the respondents are concerned with issues to do with double debits and

fraud while 51% with internet issues. These anomalies are critical if more digital payment utilization is to be encouraged and a safer and more efficient payment environment is to be promoted (Sharma et al., 2024). Altogether, the development of digital payments in India demonstrates a clear trend in consumer behavior and underlines India's position as one of the leaders in the use of digital payments in the world. With the advancement in the electronic payment systems, knowledge of consumers' behaviour and attitude will be important in the further development of this growth area.

Table 1: Comparative Analysis of Key Studies on Digital Payments and Spending Habits

Author(s)	Focus Area	Key Findings
Achutamba et al. (2022)	Perception of Digital Payments	The COVID-19 pandemic significantly accelerated the adoption of digital payments. The pandemic highlighted the convenience and necessity of digital payments, although trust issues remain.
Angamuthu (2020)	Changes in Spending Patterns	The adoption of digital payments increased both the volume and value of transactions. Mobile wallets and IMPS services experienced notable growth, indicating a shift in spending behavior towards digital platforms.
Pal et al. (2020)	Impact of Digital Payments on Spending	Digital payment technologies, such as QR codes, have improved accessibility for small vendors and rural areas. This increased accessibility has led to more diverse spending patterns among consumers.
San (2024)	Frequency of Digital Payment Usage	Frequent use of digital payment systems correlates with higher spending. Mobile wallet usage is linked to impulse buying, suggesting that increased usage can lead to changes in spending habits.
Jeyadevi & Duraisamy (2023)	Long-Term Changes in Spending Patterns	Longitudinal studies show that prolonged use of digital payments stabilizes spending habits. As users become more familiar with digital payments, their financial management improves, leading to more consistent spending behaviors.
Manya Rathore (2024)	Changes in Spending Categories	Digital payment adoption, especially UPI, has led to increased spending in various categories. A significant percentage of young adults reported spending more frequently, indicating a shift towards higher-value transactions.

2.7 Hypothesis Development

2.7.1 Hypothesis 1: Relationship Between Perception and Spending Habits

The perception about the digital payments in the context of young adults in Kerala is likely to shape their expenditure pattern profoundly. Studied have indicated that the perceived ease of use and perceived usefulness of the digital payment systems influence the users' behaviour (Venkatesh

et al., 2003). The young adults will be more likely to adopt the use of digital payments since they will perceive them as being convenient and beneficial. For example, the perceived usefulness and the perceived ease of use have been associated with a higher rate of usage and intention to use the digital payment systems (Dahlberg et al., 2008). This relationship is further buttressed by the idea by that positive attitudes towards the use of digital payments promotes spending behaviour because users feel more at ease to spend via digital platforms (Lee et al., 2022). The perceived alignment of technology to the users' needs and the perceived improvement in the efficiency of transactions also play a role in the kind of spending that is made. Hence, more positive perception towards digital payments among the young adults will lead to more frequent and diverse spending, thus enhancing the role of digital payment perception on consumers' spending.

H1: There is a significant relationship between the perception of young adults in Kerala towards digital payments and their spending habits.

2.7.2 Hypothesis 2: Changes in Spending Patterns with Digital Payments

Research has proved that the use of mobile payment apps brings about significant changes in consumption trends by different categories. Research shows that digital payment methods can change consumers' spending pattern by providing convenience and immediate transactions (Bhoopathy & Kanagaraj, 2023). For instance, mobile payments are regarded as influencing impulse buying because of the convenience in doing away with physical cash (San, 2024). The real-time tracking of spending through e-wallets may also cause an upsurge in expenditure on areas such as eating out and entertainment as consumers feel they have greater financial control than before (Jeyadevi & Duraisamy, 2023). It can therefore bring about large shifts in the way young adults in Kerala disaggregate their expenditure across different categories of retail, dining and entertainment expenditure as digital money transactions assume a larger share of the spend as a segment.

H2: The adoption of digital payment apps leads to significant changes in spending patterns across different categories among young adults in Kerala.

2.7.3 Hypothesis 3: Effect of Digital Payment Frequency on Spending Habits

The frequency of using digital payments is likely to influence significantly the spending behaviour of young adults. An increase in the usage of the digital payment mode has been linked with a rise in consumption expenditure because the payment methods afford convenience and are easily accessible (Ghosh, 2021). The frequent use of digital payments can decrease the psychological cost related to consumption which in turn increase consumption expenditure (Lee, Gan & Liew,

2022). In addition, the mobile payment apps often include other tools like daily spending monitor or bonus that also affects the spending behavior (San, 2024). The continued use of digital payments can lead to a change of shopping behavior as the convenience of the digital payments increases more and larger purchases. The following trend is supported by the findings that more active and higher value spending activities correspond to the usage of the digital payment methods (Singh & Rana, 2017). Hence the level of digital payment usage is likely to determine the level of spending among the young adults in Kerala in tandem with the general trends in the usage of digital payments.

H3: The frequency of digital payment usage significantly impacts the spending habits of young adults in Kerala.

2.8 Conceptual Framework and Theoretical Perspectives

The conceptual framework for this study analyzes the effect of digital payments on consumption behavior of young people in Kerala, India. This framework synthesizes the theoretical approach and research findings to explain how variables like the digital payment adoption, spending behaviour and perception are interconnected. This framework is important in making sense of the patterns and relationship that have been identified when Analysing data, as well as to note any areas of theory that have been left out.

Concepts and Relationships

1. **Perception of Digital Payments:** Several attributes were found to be involved in the perception of digital payments which include; perceived usefulness, perceived risks, and perceived ease of use. The first theoretical view is the Technology Acceptance Model (TAM) which states that perceived ease of use and perceived usefulness are the key determinants of technology acceptance (Davis, 1989). These perceptions shape the way young adult in Kerala perceives and use the digital payments system. Specific perceptions are expected to have a positive relationship with adoption rate and changes in spending patterns.
2. **Adoption of Digital Payment Apps:** The use of these technologies in paying for goods and services is the application of these technologies in general financial activities. Understanding how innovations are communicated over a period of time is done with the help of the Diffusion of Innovations (DOI) theory developed by Rogers (2003) that takes into account relative advantage, compatibility, complexity, and observability. The DOI

theory explains the fast-growing use of the digital payment apps in the India due to government encouragement and technological influence. It is believed that this adoption will change spending patterns by presenting new possibilities for the convenience of transactions and personal finance.

3. **Frequency of Digital Payment Usage:** The frequency of the usage of digital payments affects spending through changes in frequency of transactions. According to TPB (Ajzen 1991), this influence is attributed to attitude, subjective norms and perceived behavioral control. Attitudes: This is because, the more individuals engage in digital payments, the more they have a positive perception of spending due to the flexibility that comes with the method hence encouraging more spending. Subjective Norms: When these electronic payment methods are becoming socially acceptable, the behaviour of the individuals may be coerced into using them more in their spending patterns. Perceived Behavioral Control: Real time tracking is a feature that can be provided by digital payments, which improves the user's control over the finances and may lead to higher spending rates. Therefore, TPB stands for the hypothesis concerning the effect of intensity of digital payment usage on spending.

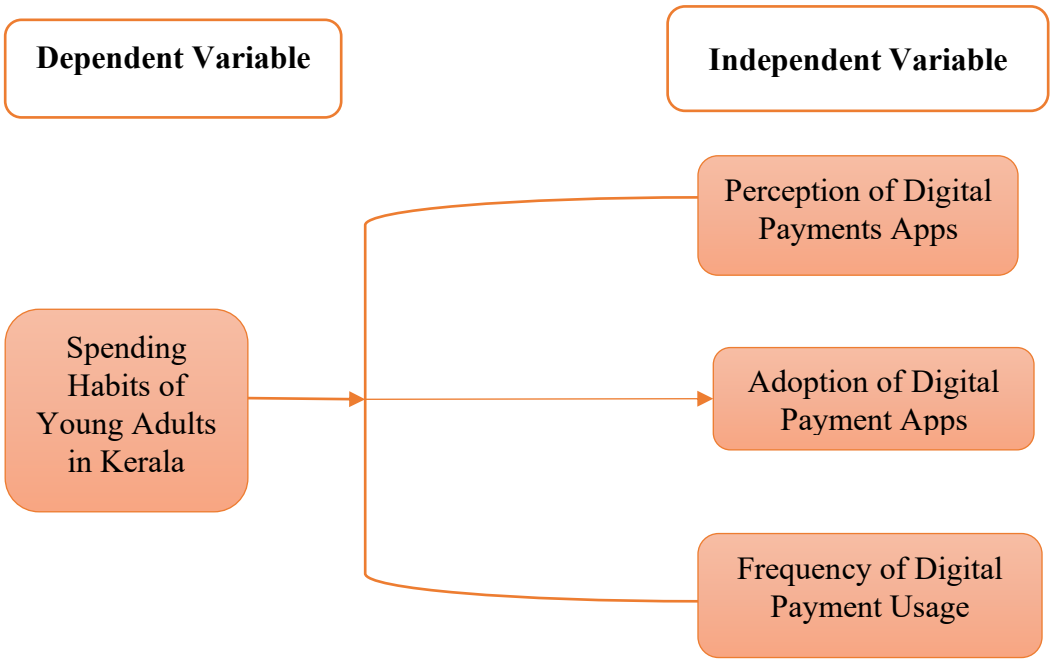

Figure 5: Conceptual Framework (Author's Created)

Theory Application and Testing

The study employs the Technology Acceptance Model (TAM) and the Diffusion of Innovations (DOI) theory to achieve the research objectives and hypotheses. These theories can be used to explain the effects of perception towards adoption as well as spending on digital payments.

- **Hypothesis 1:** The interaction between the perception and the actual spending that comes with digital payments is tested using the TAM that assumes that positive perception of digital payments (for instance, convenience and usefulness) result to adoption and diverse spending. This hypothesis will be tested through survey of young adults' perception and their corresponding spending behaviour.
- **Hypothesis 2:** The DOI theory is used to examine the shift in spending behaviour across the different categories as individuals transition to using apps to make digital payments. To test the hypothesis, the spending behaviour before and after the adoption of the mobile banking will be compared in different domains such as retail, eating out and entertainment.
- **Hypothesis 3:** Based on the Theory of Planned Behavior (TPB, Ajzen, 1991), the impact of the digital payment frequency on spending behavior is examined. According to TPB, there can be improvement in spending through using the digital payments by changing attitude, social pressure and perceived control. Frequency can help develop more positive perceptions on spending; increase the pressure to engage in digital payments; and offer improved control over money expenditure, all of which may translate to increased spending. It is with the usage frequency and spending data that this hypothesis will be verified.

Gaps and Theoretical Development

The research addresses these gaps by providing a focused analysis of how digital payments influence spending patterns among young adults in Kerala. By examining specific demographic factors, such as age and digital literacy, the study offers insights into how these factors interact with digital payment systems to shape consumer behavior. The research also explores the impact of digital payments on various spending categories, providing a detailed understanding of shifts in consumer expenditure. Moreover, it incorporates a longitudinal perspective, analyzing changes over time in response to major events such as demonetization and the COVID-19 pandemic. This approach contributes to a more granular understanding of the effects of digital payments, filling gaps left by broader studies and offering valuable insights for policymakers and businesses aiming to tailor their strategies to specific consumer segments.

Though the TAM and DOI theories provide insights about the overall effects of digital payments, these theories may not be able to capture all the contextual differences in the case of Kerala. New findings may expose holes that have not been captured in current theories, for instance, the role of culture and geographical location on the use and expenditure on digital payments. Future studies may aim at identifying and establishing theories to help explain these contextual variations.

The conceptual framework offers a good framework to guide the analysis of the effects of digital payments on consumption patterns of the youths in Kerala. With the aid of theoretical constructs including TAM, DOI, and Theory of Planned Behavior, the framework assists in explaining the associations between perceptions, adoption and usage frequency of digital payments on spending. This approach enables the study to be anchored on theories but at the same time remain open to fresh theories and literature as it unfolds.

3 METHODOLOGY

This chapter explains the approach used in analyzing the impact of digital payments on youths' expenditure pattern in Kerala. To ensure that the research was systematic, the research adopted Saunders' research onion framework that offered a framework to guide the study. This is the research strategy, method, approach, and general philosophy that is applied in the collection and analysis of data. The research philosophy adopted was positivism which asserts that knowledge is created through quantitative analysis of variables to support hypothesis on digital payments and spending behaviour. The study adopted the deductive method of conducting research where the researcher starts from laid down theories and then tries to prove or disprove them through the data collected. Descriptive research design was used, this is a research design, which aims at describing the nature of the relationship between variables. The research method employed in the study was the survey method whereby structured questionnaires were used to collect quantitative data. This method enabled the assessment of all kinds of attitudes and behaviors which are associated with digital payments. This chapter also gives an outline of the data collection instruments, the study area, sampling techniques, and issues of Ethics in order to carry out a systematic research on the topic of study.

3.1 Research Onion

The research onion, developed by Saunders, Lewis, and Thornhill (2019), provides a conceptual tool to structure research. It comprises several parts that correspond to different steps and factors of the research work, thus providing the systematic approach. The next layer includes research philosophy which covers questions of ontological and epistemological beliefs. Subsequently, the nature of the research approach is either inductive—that is, generation of theories from observations—or deductive—that is, testing of hypotheses.

The next layer is the research strategy layer that consists of the various methods like experiments, surveys, case studies, action research depending on the objectives of the study and data requirements. The methods layer determines whether a mono method, a mixed method or a multi method study will be adopted depending on the study's sophistication and data demands. The cross-sectional/Longitudinal layer considers if the research will be restricted to a certain period or if the data is going to be collected over a period of time. Lastly, the techniques of data collection and analysis layer consists of deciding between the use of qualitative or quantitative methods and whether to use primary or secondary data.

In the current study, the research onion assists in the systematic development of research by outlining; the research philosophy, approach, strategy, methods, and data collection methods. This increases the efficiency of the research as it adopts a structure that enhances the investigation of how the use of digital payments affects the expenditure.

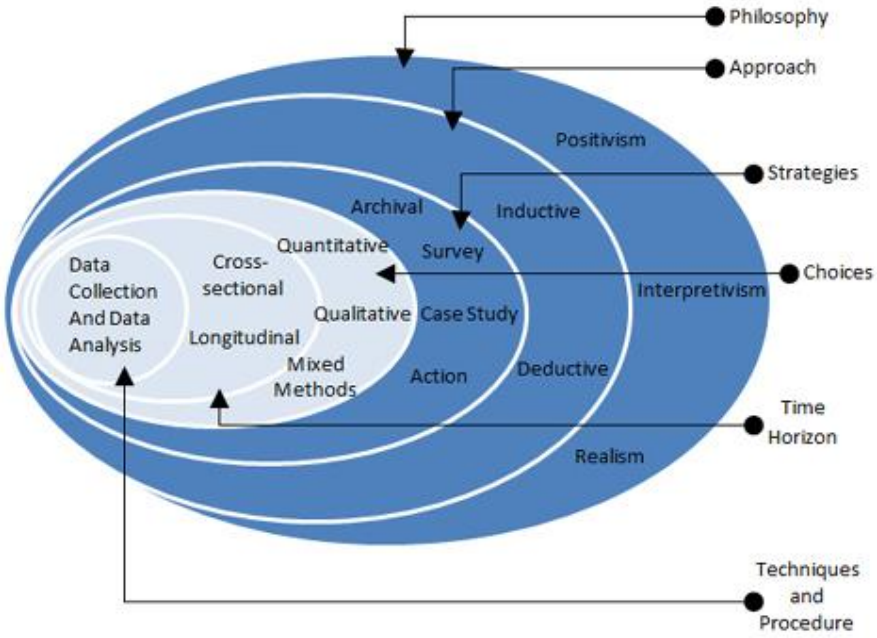

Figure 6: Research Onion (Saunders et al., 2019)

3.2 Research Design

Research design can be defined as a systematic approach that is designed to respond to given research questions and encompasses various elements and tactics for data collection and analysis (Saunders et al., 2012). It includes choice of the study type (quantitative, qualitative, mixed method, etc.), sub type (for instance descriptive-longitudinal case study) and hypotheses and the methods of data collection and analysis (Creswell, 2014).

In the current study, the descriptive design was used. This is in view of the fact that the choice is suitable for describing and explaining patterns of consumption behavior that are affected by adoption of digital payment. The design will help in the collection and organization of pertinent information so as to enhance systematic approach to the research problem.

3.3 Research Philosophy

Research philosophy plays a central role in defining the course and methods of a study. It identifies how scholars understand and engage with their research questions as well as chart the general

methodological framework (Tsang, 2016). In practice, various research paradigms correlate with particular data gathering approaches. Pragmatism can also incorporate both quantitative and qualitative research, or use both a mixture and multiple methods. Positivism tends to used very formal methods, often recommending large sample sizes and numerical data, although it can use non-numerical data if required. Realism's methods are selected depending on the topic in which both quantitative and qualitative forms of data collection and analysis are allowed. In contrast, interpretivism is normally associated with small numbers of participants and qualitative research studies (Saunders, Lewis and Thornhill, 2012).

In this research, a positivism research philosophy was adopted. Positivism entails the use of facts and theories and focuses on the use of data to validate the hypotheses. This philosophy uses hypothetico-deductive approach by putting a lot of emphasis on structured methods of testing pre-developed theories (Park et al., 2020). In the case of the current research, the positivist paradigm was applied to the research process to establish the relationship between digital payments and consumer expenditure through the administration of structured quantitative data collection tools. This approach guarantees an empirical analysis that corresponds to the objective of assessing hypotheses regarding digital payment adoption.

3.4 Research Approach

In research, two principal approaches are commonly recognized: Inductive and deductive. Inductive approach of reasoning is one that begins with certain specifics of a given phenomenon in an attempt to arrive at general theories or conceptions. This method is defined by Trochim (2006) as a process that starts from specifics and ends with generalizations, with more focus in the formulation of theory out of data. On the other hand, the deductive approach starts from a general theory or hypothesis and the validity of the theory is checked by specific observations and data (Creswell & Plano Clark, 2007). Inductive reasoning is the process of coming up with specific patterns and generalizing them in a bid to prove or disprove hypotheses.

For this research, deductive approach was used Since this research was guided by hypothesis, the research approach used here was deductive. This approach begins by assuming that digital payments have this and that effect on consumer spending, and then by collecting and analyzing data with a specific structure. This is a flexible approach because it enables the assessment of theories and hypotheses set down by other researchers against the real world data; thus providing a theory driven research approach as opposed to bottom up approach. Applying a deductive method

is consistent with the study's goals since its main focus is to provide empirical evidence for some specific hypotheses concerning digital payments and their effects on consumers' behavior.

3.5 Research Strategy

Research strategy defines the approach that is to be employed in conducting the study, the steps and techniques that are to be followed to address research questions and accomplish the objectives. Saunders et al. (2012) classified research strategies in to several types, which are experimentation, survey, case study and action research. Each of them has different functions and is chosen depending on the objectives of the study and the type of data to be obtained.

In this research, survey strategy was adopted. Questionnaires on the other hand are ideal for gathering large amounts of quantitative data from a large population of respondents hence useful in this study to determine the correlation between digital payments and spending. This strategy entails development of well-crafted questionnaires that seek to capture information on different factors including consumers' attitude towards digital payments and their expenditure. Thus, the survey strategy is used in an attempt to obtain a diverse range of responses, so that quantitative analysis is possible and the results can be generalized. Such a strategy is in sync with the study's goal of evaluating the role of digital payments on consumers' behavior among young people.

3.6 Methodological Choice

In order to assess the spending patterns of young adults in Kerala, a quantitative research approach has been opted for this study. Quantitative research aims at measuring the variables and applies statistical techniques in the testing of postulated hypothesis and looking for relationships (Collis & Hussey, 2013). This approach will be in line with the study goal of assessing quantitative data concerning the use of digital payment and its effects on spending patterns. In research, there are various decisions that can be taken depending on the choice of method that can be classified into; mono-method, multiple-method or mixed-method. In the case of a mono-method approach, there is the use of one method of data collection only, either the qualitative or the quantitative, together with the corresponding analysis processes (Creswell, 2013). A cross-sectional design entails the use of more than one approach for data collection whereas a mixed-method incorporates both quantitative and qualitative methods (Saunders et al., 2019).

Therefore, for this particular study, a quantitative mono-method research design was deemed most appropriate, as it involved the use of structured questionnaires to gather numerical data only. This

method makes it possible to quantify variables of interest and obtain highly reliable statistical inferences to infer the effects of digital payments on consumers' expenditure patterns.

3.7 Time Horizon

Time horizon in research focuses on the temporal context under which the research is conducted and can be categorized into cross-sectional or longitudinal research (Bryman & Bell, 2015). Longitudinal studies are a type of study whereby the same population or phenomenon is followed for a long duration, thus enabling the researcher to study the changes and trends within the population (Caruana et al., 2015). On the other hand, Cross-sectional study involves the collection of data only at one point in time which means that when analyzing the research variables, the study gives a cross-sectional or a snapshot view (Setia, 2016).

In the current study, therefore, a cross-sectional time horizon was adopted. This approach was useful to identify the spending pattern of young adults in Kerala during a certain period of time concerning digital payments. This method was appropriate for exploring current trends and co-dependency of variables without having to undertake a long-term study.

3.8 Data Collection and Analysis

3.8.1 Data Collection Tools and Procedures

The quantitative data were collected using a structured questionnaire that contained Likert scale items. This approach enabled the assessment of attitudes on matters to do with digital payments with responses ranging from strongly disagree to strongly agree. The questionnaire was administered online using emails, and social media groups and pages to increase coverage and ease. This method was selected because it allows getting a large number of standardized responses quickly and effectively. Measurement was used with the development of well-defined and concise survey questions that were consistent with the research goals that will capture the perception, adoption, and the frequency of use of the digital payment.

3.8.2 Study Area

The research population is the specific classification of people or things to be included in the study according to certain set criteria (Garg, 2016). The survey is held in Kerala, India due to its geographical and economic heterogeneity and ranging digital payments usage. With rising young people and technological development, Kerala offers a good backdrop to study the trend of digital payment among the young people.

3.8.3 Research Population and Sample Size

The target participants of the research are young adults of the age group of 18-25 years living in Kerala. Sample size is a critical factor in research that has to be measured in an accurate manner to enhance the reliability and validity of the results. According to Green's (1991) method, which recommends a sample size of 50 plus eight times the number of independent variables, the ideal sample size for this study is calculated as follows: This means 50 plus 8 times 3 (for the three independent variables), thus 74 participants [50 + 8(3) = 74]. This approach is consistent with regression analysis practices as described by Saunders et al. (2019). Since the research seeks to test the influence of three independent variables on one dependent variable, expenditure behaviour of young adults in Kerala, the sample size of 80 to 100 respondents is planned. This range offers a rich source of data to establish the correlation between the perception of the digital payments, the usage of the digital payment applications, the frequency of using digital payments and their impact on the spending patterns.

3.8.4 Sampling Procedures

The process of sampling was done through convenience sampling where emphasis was on the ability and willingness of the participants. To overcome this challenge, the study made efforts to target the participants with different educational levels and occupations.

3.8.5 Study Phases

This study is a cross-sectional study, and therefore, did not require more than one phase – data collection, analysis, and reporting. An accompanying Gantt chart indicated the activities needed to be completed in the various phases of the study including the development of questionnaires, data collection, analysis and writing of the report.

3.8.6 Variables and Their Measurement

In this study, key variables are measured by the use of the Likert scale since it is more organized than other types of scales in measuring attitudes and behaviors. The measurement methods for each variable are as follows:

- **Perception of Digital Payments:** This variable is measured through a 5-item Likert scale that focuses on the respondents' attitudes towards digital payment methods. Participants make the responses on a Likert scale ranging from "Strongly Disagree" to "Strongly Agree" on statements describing the usefulness, convenience and security of using the digital payment systems.

- **Adoption of Digital Payment Apps:** This variable is assessed by the usage frequency and the most preferred digital payment applications. Users state how frequently they engage in the use of available applications; and the extent to which they are satisfied with the choice of the particular platforms, and the reasons for the choice, on a 5 Likert scale.
- **Frequency of Digital Payment Usage:** This variable is captured by a set of questions that seeks to know the frequency, with which the participants engage in various transactions through digital payments. It is quantitatively measured by the frequency levels under which the responses are grouped; these include Daily, Weekly, Monthly and Rarely.
- **Spending Habits:** This variable is measured in a way that involves questions on participant's spending and their management of the same. To measure the extent of the participants' agreement with the statements regarding their spending behaviours and financial management affected by the use of the digital payment, participants complete the Likert scale.

The measurement of each variable is aimed at gaining a micro level understanding of how digital payments have affected the financial behaviour of young adults in Kerala.

3.8.7 Ethical Considerations

Ethical issues play a critical role in determining the validity and reliability of studies. As stated by Saunders et al. (2019), there are several principles that need to be considered. Firstly, participants' consent is important; participants should have adequate information about the research objectives, methods, and possible consequences. This consent should be an informed one, and the evidence of it has to be in writing. Second, anonymity has to be preserved, meaning that all the collected data has to remain personal and can only be used for research. Personally identifiable information should be removed to protect the rights of the participants. Thirdly, researchers have to be extra careful with the information they are dealing with and also when presenting the data collected to the public, participants must not be harmed in any way or misrepresented. Last, the element of voluntary participation implies that subjects should be free to leave the study whenever they wish without incurring any consequences. The ethical practice in research is crucial in maintaining the integrity of the participants, as well as for credibility of the research outcomes.

4 FINDINGS

In this chapter, analysis of the results was done using Statistical Package for Social Science (SPSS), including frequencies, descriptive statistics, correlation, and regression analyses. The paper gives understanding of how the digital payment apps affect the spending pattern of the youths in Kerala. The frequency and descriptive results will be presented and discussed, bivariate correlations will be analyzed to look for relationships between variables, and regression results will be assessed to see if the results support the proposed hypotheses.

4.1 Screening Questions

The initial aim was to collect survey responses from a sample size of 70-100 participants for the study titled "The Impact of Digital Payments on Consumer Spending Habits: of young adults aged 18-25 in Kerala, India.' However, the survey attained 158 responses in total. The following steps were taken when analyzing the data: Any response that contained no values were excluded, thus, the number of valid responses was adjusted to 139 participants. By applying such strict criteria for the study, additional exclusion was made, and the final sample of 100 participants was obtained, which was the initial intended sample size.

4.1.1 Demographic Information

Age Group: All 100 participants in the final sample were within the targeted age group of 18 to 25 years old. This demographic data aligns with the study's objective to understand the spending habits and digital payment perceptions of young adults within this age range.

Table 2: Are you aged between 18 and 25 years old?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	100	100.0	100.0	100.0

Residency: All participants confirmed their residency in Kerala, India. This is crucial, as the study specifically focuses on the behavior and perceptions of young adults residing in Kerala, ensuring the relevance of the findings to the specified region.

Table 3: Do you currently reside in Kerala, India?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	100	100.0	100.0	100.0

Use of Digital Payment Apps: All 100 participants indicated that they use digital payment apps for transactions. This finding is significant because it ensures that the study's insights are drawn from individuals who actively engage with digital payment platforms, thereby providing relevant and accurate data for analyzing the impact of digital payments on their spending habits.

Table 4: Do you use digital payment apps for transactions?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	100	100.0	100.0	100.0

Overall, the sample is well-aligned with the study's requirements, ensuring that the data accurately reflects the impact of digital payments on the spending habits of young adults in Kerala.

4.2 Frequency Analysis

4.2.1 Digital Payment Perception

Digital payments are more convenient for everyday transactions compared to using cash.

The first question examines the perception of convenience in digital payments compared to cash. The majority of respondents, 79% (combining 40% who agreed and 39% who strongly agreed), find digital payments more convenient for everyday transactions. This indicates a strong preference for digital payment methods over cash among the respondents. Only a small fraction of participants (6%) strongly disagreed, while another 1% disagreed. The neutral group accounted for 14%, showing that a minor portion of the population is undecided about the convenience of digital payments.

Table 5: Digital Payment Perception Question 1

Digital payments are more convenient for everyday transactions compared to using cash.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	6	6.0	6.0	6.0
	Disagree	1	1.0	1.0	7.0
	Neutral	14	14.0	14.0	21.0
	Agree	40	40.0	40.0	61.0
	Strongly Agree	39	39.0	39.0	100.0
	Total	100	100.0	100.0	

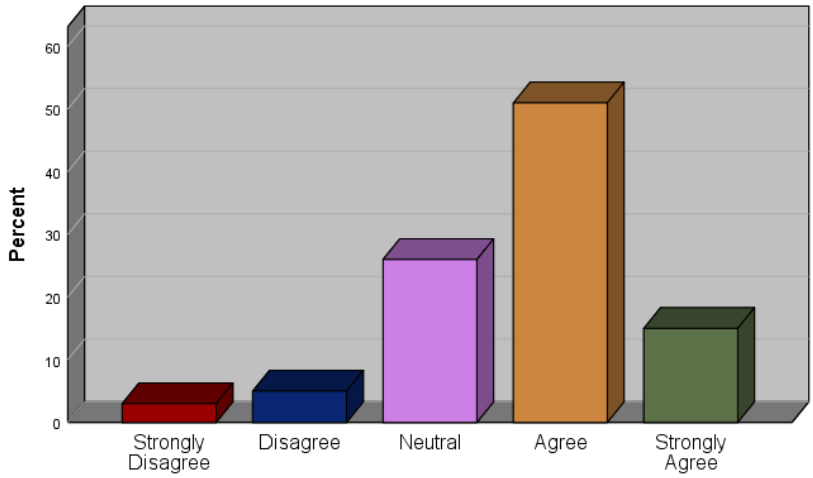

Figure 7: Digital Payment Perception Question 1

I believe that digital payment methods are secure and protect my personal financial information.

Regarding the belief in the security of digital payment methods, a significant proportion of respondents, 53% (42% agreed and 11% strongly agreed), expressed confidence in the security of digital payments. However, 38% remained neutral, indicating uncertainty or lack of strong opinion on this matter. A small portion, 9% (8% disagreed and 1% strongly disagreed), showed concern about the security of digital payment methods. This distribution suggests that while a majority trust digital payment security, a substantial group still holds reservations or is undecided.

Table 6: Digital Payment Perception Question 2

I believe that digital payment methods are secure and protect my personal financial information.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	1.0	1.0	1.0
	Disagree	8	8.0	8.0	9.0
	Neutral	38	38.0	38.0	47.0
	Agree	42	42.0	42.0	89.0
	Strongly Agree	11	11.0	11.0	100.0
	Total	100	100.0	100.0	

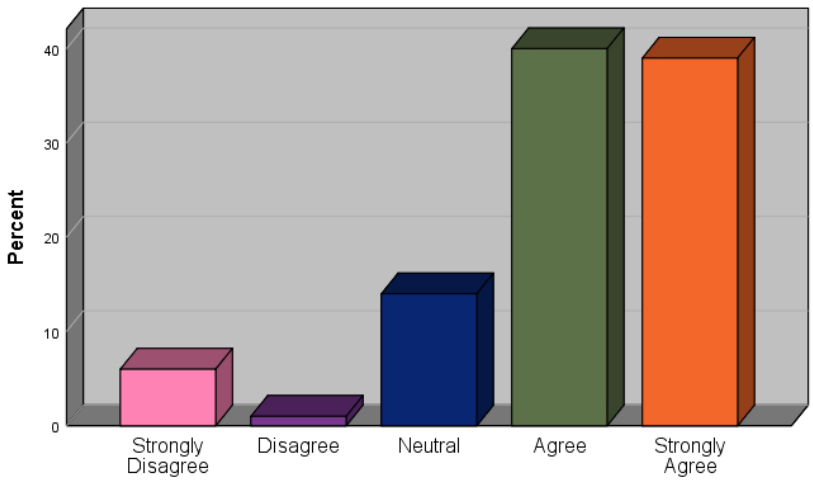

Figure 8: Digital Payment Perception Question 2

Using digital payments helps me track my spending more effectively by providing detailed transaction records.

When it comes to tracking spending, 81% of respondents (52% agreed and 29% strongly agreed) believe that digital payments help them manage their expenses more effectively by providing detailed transaction records. Only 7% (4% strongly disagreed and 3% disagreed) felt otherwise, indicating dissatisfaction with this feature. The neutral group, comprising 12% of the respondents, suggests that a small segment remains indifferent or unsure about the efficacy of digital payments in tracking spending. This overall positive response highlights the perceived usefulness of digital payments in financial management.

Table 7: Digital Payment Perception Question 3

Using digital payments helps me track my spending more effectively by providing detailed transaction records.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	4.0	4.0	4.0
	Disagree	3	3.0	3.0	7.0
	Neutral	12	12.0	12.0	19.0
	Agree	52	52.0	52.0	71.0
	Strongly Agree	29	29.0	29.0	100.0
	Total	100	100.0	100.0	

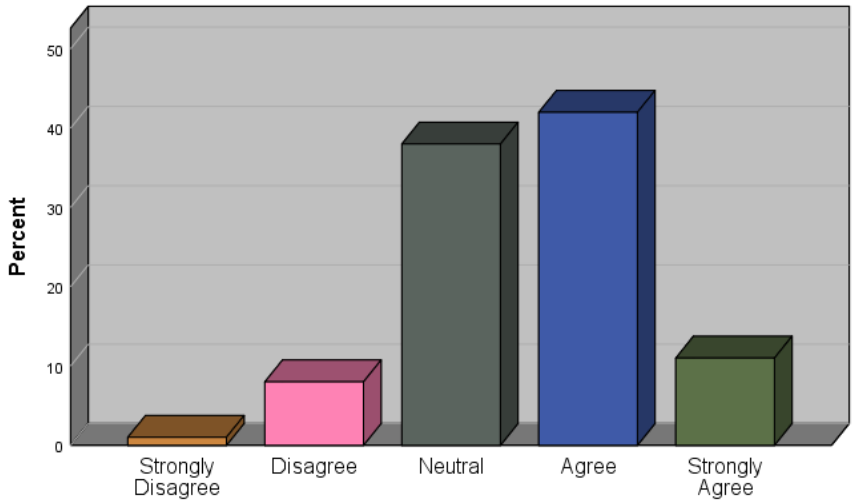

Figure 9: Digital Payment Perception Question 3

Digital payments make it easier for me to manage my budget by giving me quick access to my spending history.

In terms of budgeting, 74% (54% agreed and 20% strongly agreed) of respondents found that digital payments facilitate budget management by offering quick access to spending history. This indicates a strong positive perception of the role digital payments play in managing finances. Meanwhile, 6% (4% disagreed and 2% strongly disagreed) did not find this feature beneficial, and 20% were neutral, suggesting that while the majority see benefits in budget management through digital payments, some users remain skeptical or undecided.

Table 8: Digital Payment Perception Question 4

Digital payments make it easier for me to manage my budget by giving me quick access to my spending history.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	2.0	2.0	2.0
	Disagree	4	4.0	4.0	6.0
	Neutral	20	20.0	20.0	26.0
	Agree	54	54.0	54.0	80.0
	Strongly Agree	20	20.0	20.0	100.0
	Total	100	100.0	100.0	

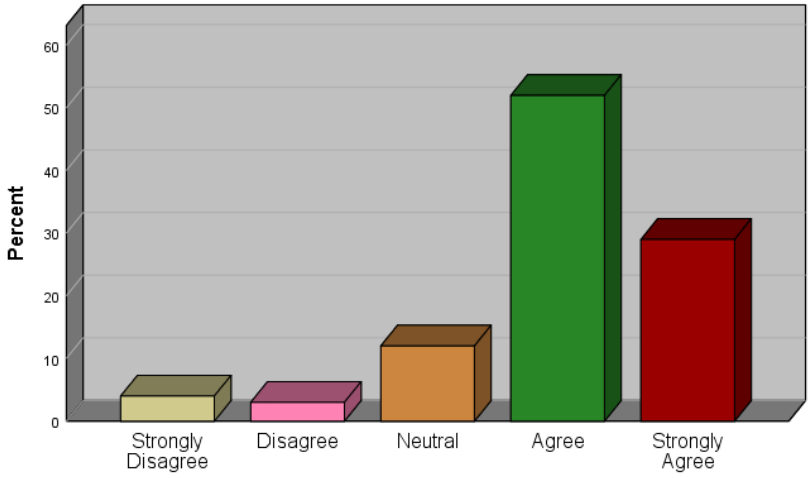

Figure 10: Digital Payment Perception Question 4

I find digital payment methods to be reliable and trustworthy for completing transactions.

Lastly, on the reliability and trustworthiness of digital payment methods, 66% (51% agreed and 15% strongly agreed) of respondents found digital payments reliable for completing transactions. However, 34% of the respondents were either neutral (26%), disagreed (5%), or strongly disagreed (3%), reflecting a mixed level of trust among users. The majority's positive response suggests general confidence in digital payment methods, though a significant minority remains uncertain or distrustful.

Table 9: Digital Payment Perception Question 5

I find digital payment methods to be reliable and trustworthy for completing transactions.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3	3.0	3.0	3.0
	Disagree	5	5.0	5.0	8.0
	Neutral	26	26.0	26.0	34.0
	Agree	51	51.0	51.0	85.0
	Strongly Agree	15	15.0	15.0	100.0
	Total	100	100.0	100.0	

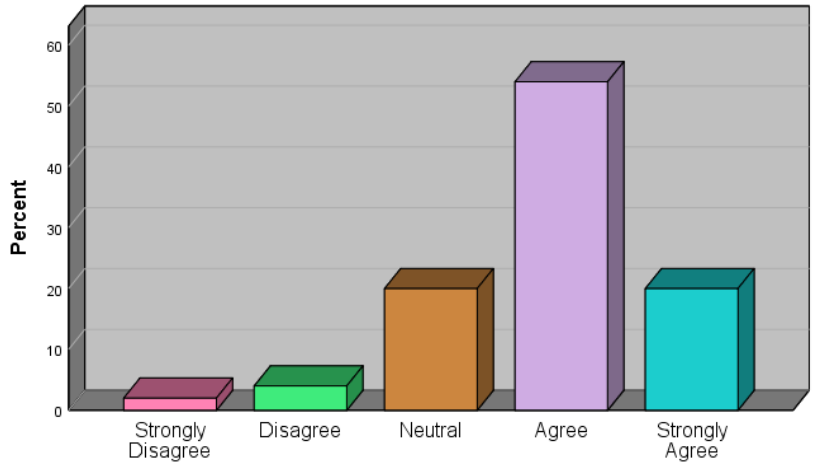

Figure 11: Digital Payment Perception Question 5

4.2.2 Spending Patterns After Adopting Digital Payment Apps

Which digital payment apps do you currently use?

Among the respondents, a significant majority, 86%, use Google Pay, making it the most popular digital payment app among young adults in Kerala. PhonePe follows distantly with 7% usage, while Paytm is used by 4% of respondents. Apple Pay and other apps each account for 1% of the users. The preference for Google Pay highlights its dominance in the market, likely due to its user-friendly interface and widespread acceptance. The minimal usage of other apps suggests a strong preference for a single app, potentially limiting competition among digital payment platforms in this demographic.

Table 10: Spending Patterns Question 1

Which digital payment apps do you currently use? (Select all that apply)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Google Pay	86	86.0	86.9	86.9
	PhonePe	7	7.0	7.1	93.9
	Paytm	4	4.0	4.0	98.0
	Apple Pay	1	1.0	1.0	99.0
	Other	1	1.0	1.0	100.0
	Total	99	99.0	100.0	
Missing	System	1	1.0		
Total		100	100.0		

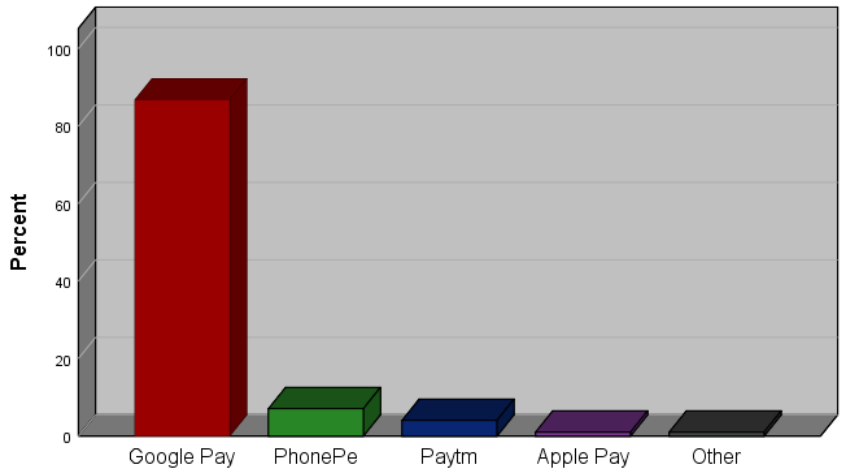

Figure 12: Spending Pattern Question 1

Since I started using digital payment apps, I spend more on online shopping compared to traditional retail stores.

The shift in spending habits towards online shopping is evident, with 68% of respondents (46% agreeing and 22% strongly agreeing) acknowledging an increase in online shopping since they started using digital payment apps. This trend indicates that the convenience and accessibility of digital payments are driving a significant shift from traditional retail to online platforms. While 21% remain neutral, indicating no change in their shopping habits, only a small percentage (11%) disagrees, showing resistance to this shift. The data suggests a growing reliance on online shopping facilitated by digital payments.

Table 11: Spending Pattern Question 2

Since I started using digital payment apps, I spend more on online shopping compared to traditional retail stores.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	4.0	4.0	4.0
	Disagree	7	7.0	7.0	11.0
	Neutral	21	21.0	21.0	32.0
	Agree	46	46.0	46.0	78.0
	Strongly Agree	22	22.0	22.0	100.0
	Total	100	100.0	100.0	

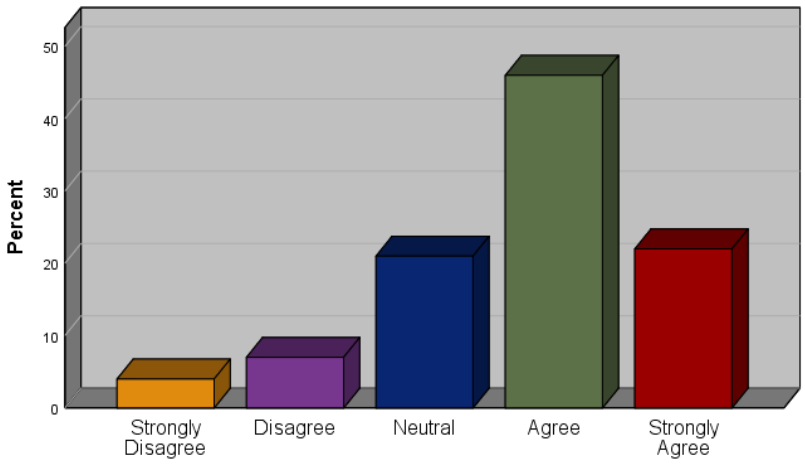

Figure 13: Spending Pattern Question 2

Digital payment apps have led me to spend more on dining out compared to cooking at home. Digital payment apps appear to influence dining habits, with 50% of respondents (37% agreeing and 13% strongly agreeing) indicating an increase in spending on dining out. This shift may be attributed to the ease of payment and the frequent promotions offered by digital payment apps at restaurants. However, 29% of respondents remain neutral, indicating no significant change in their dining habits, while 21% disagree, showing that a considerable portion still prefers cooking at home. The data suggests a moderate impact of digital payments on dining habits, with a notable inclination towards dining out.

Table 12: Spending Pattern Question 3

Digital payment apps have led me to spend more on dining out compared to cooking at home.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	4.0	4.0	4.0
	Disagree	17	17.0	17.0	21.0
	Neutral	29	29.0	29.0	50.0
	Agree	37	37.0	37.0	87.0
	Strongly Agree	13	13.0	13.0	100.0
	Total	100	100.0	100.0	

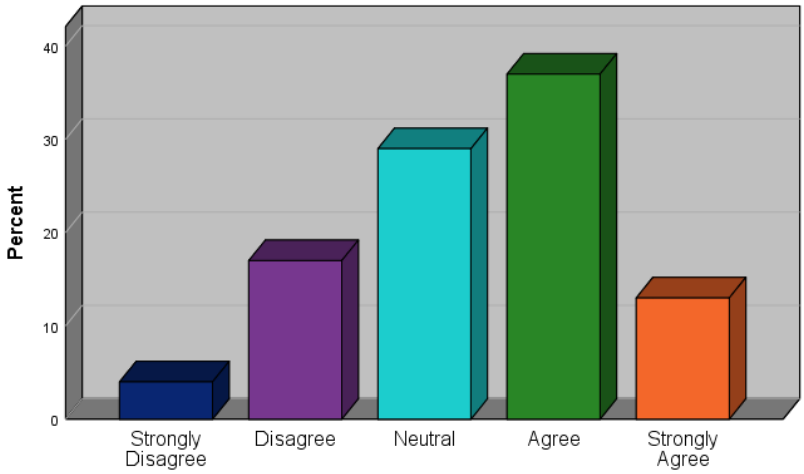

Figure 14: Spending Pattern Question 3

I find that my spending on entertainment activities (e.g., movies, concerts) has increased since using digital payment apps.

Entertainment spending has increased for 53% of respondents (41% agreeing and 12% strongly agreeing) since adopting digital payment apps. This indicates that the ease of purchasing tickets and accessing entertainment services through digital platforms may be encouraging higher expenditure in this category. Meanwhile, 22% remain neutral, and 25% disagree, reflecting a divide in how digital payments impact entertainment spending. The data shows that while a significant portion of the population is spending more on entertainment due to digital payments, a considerable group has not altered their spending behavior in this area.

Table 13: Spending Pattern Question 4

I find that my spending on entertainment activities (e.g., movies, concerts) has increased since using digital payment apps.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	4.0	4.0	4.0
	Disagree	21	21.0	21.0	25.0
	Neutral	22	22.0	22.0	47.0
	Agree	41	41.0	41.0	88.0
	Strongly Agree	12	12.0	12.0	100.0
	Total	100	100.0	100.0	

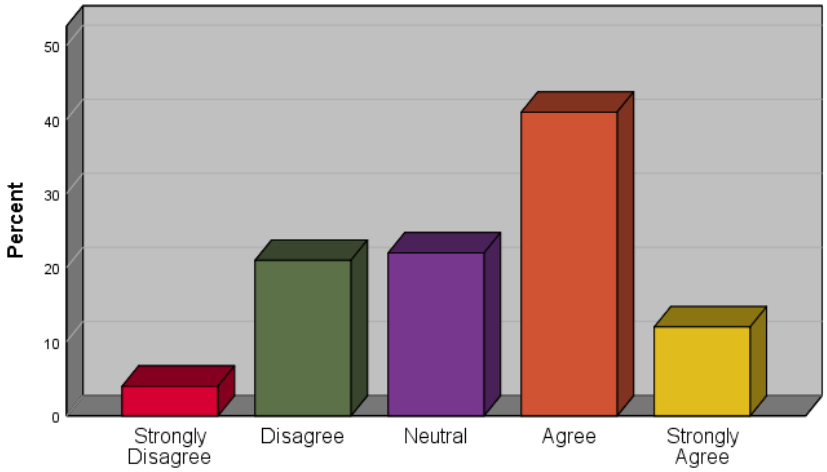

Figure 15: Spending Pattern Question 4

The use of digital payment apps has changed the way I budget for monthly expenses in various categories.

A significant majority, 69% of respondents (54% agreeing and 15% strongly agreeing), report that digital payment apps have changed how they budget for monthly expenses. This suggests that digital payment apps provide tools or features that help users manage their finances more effectively across different spending categories. However, 31% of respondents (21% neutral and 10% disagreeing) do not perceive any change in their budgeting habits, indicating that not all users take full advantage of the budgeting features offered by these apps. The data highlights the role of digital payments in influencing budgeting behaviors, though with varying degrees of impact.

Table 14: Spending Pattern Question 5

The use of digital payment apps has changed the way I budget for monthly expenses in various categories.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	1.0	1.0	1.0
	Disagree	9	9.0	9.0	10.0
	Neutral	21	21.0	21.0	31.0
	Agree	54	54.0	54.0	85.0
	Strongly Agree	15	15.0	15.0	100.0
	Total	100	100.0	100.0	

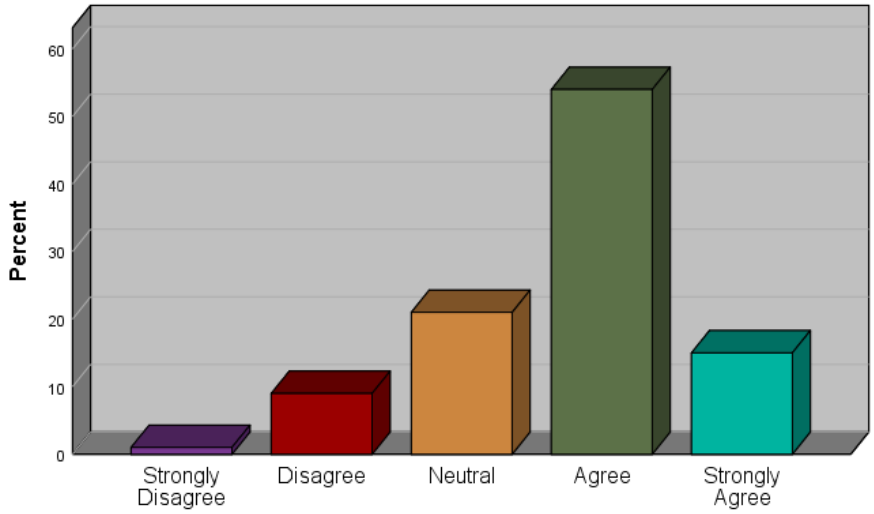

Figure 16: Spending Pattern Question 5

I am more likely to make spontaneous purchases on apps or online platforms than I was before using digital payment apps.

Spontaneous purchases have become more common, with 69% of respondents (48% agreeing and 21% strongly agreeing) admitting to making more impulsive buys since using digital payment apps. This trend indicates that the convenience and quickness of digital payments may encourage less deliberation before making purchases, especially on online platforms. While 18% remain neutral, 13% of respondents (9% disagreeing and 4% strongly disagreeing) have not experienced an increase in spontaneous buying. The data suggests that digital payment apps play a significant role in fostering impulsive spending behavior among users.

Table 15: Spending Pattern Question 6

I am more likely to make spontaneous purchases on apps or online platforms than I was before using digital payment apps.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	4	4.0	4.0	4.0
	Disagree	9	9.0	9.0	13.0
	Neutral	18	18.0	18.0	31.0
	Agree	48	48.0	48.0	79.0
	Strongly Agree	21	21.0	21.0	100.0
	Total	100	100.0	100.0	

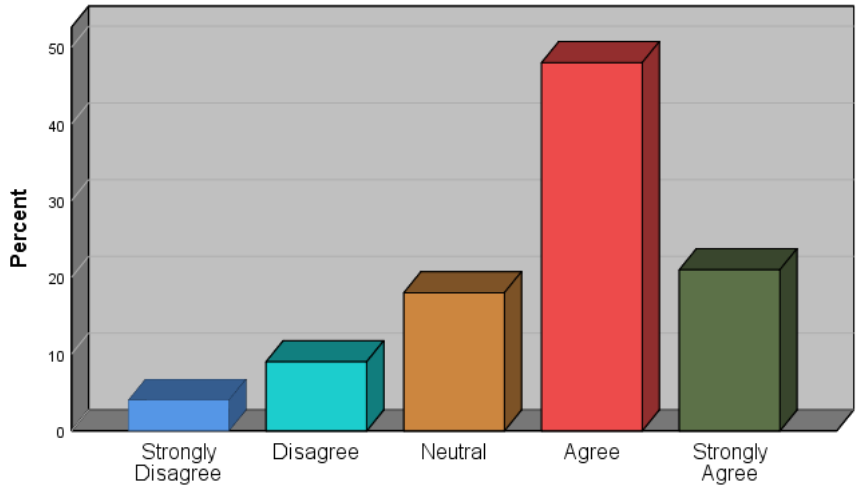

Figure 17: Spending Pattern Question 6

4.3 Descriptive Analysis

The survey conducted as part of the study on the impact of digital payments on consumer spending habits among young adults in Kerala yielded insightful results. The descriptive statistics provide a clear understanding of the participants' perceptions, adoption rates of digital payment apps, and the subsequent influence on their spending habits. The sample consisted of 100 participants, all of whom fell within the targeted age range of 18 to 25 years.

The mean score for the perception of digital payments was 3.8280, with a standard deviation of 0.70497. This indicates that, on average, the respondents generally agree that digital payments are convenient and beneficial compared to traditional payment methods. The mean score, being closer to 4 on the Likert scale, suggests a positive overall perception, though some variation exists among participants, as indicated by the standard deviation.

In terms of the adoption of digital payment apps, the mean score was 3.2053, with a standard deviation of 0.67587. This mean score indicates a moderate level of adoption, with most participants leaning towards agreement on the ease and benefits of adopting these digital tools. However, the score is slightly lower than the perception mean, suggesting that while the perception of digital payments is positive, the actual adoption may be influenced by other factors such as accessibility, familiarity, or trust in the technology.

The spending habits of the participants, measured through their self-reported changes in spending behavior after adopting digital payments, had a mean score of 3.7100, with a standard deviation of 0.71031. This score reflects a general agreement that digital payments have impacted their spending habits, particularly in terms of making transactions easier and possibly encouraging more

frequent spending. The proximity of this mean score to the perception score indicates a correlation between how participants perceive digital payments and their actual spending behavior.

The data also highlights some variability in responses, as seen in the range of scores from the minimum to maximum values across all three variables. For perception, the scores ranged from 1.20 to 5.00, showing that while many participants had a positive view, some still expressed concerns or neutrality. Similarly, the adoption of digital payment apps ranged from 1.33 to 4.67, suggesting that while adoption is generally positive, there are varying levels of engagement with these apps. Spending habits also varied, with scores ranging from 1.60 to 5.00, reflecting differing impacts of digital payments on individual spending behaviors.

Table 16: Descriptive Analysis

	N	Minimum	Maximum	Mean	Std. Deviation
Perception of Digital Payments	100	1.20	5.00	3.8280	.70497
Adoption of Digital Payment Apps	100	1.33	4.67	3.2053	.67587
Spending Habits	100	1.60	5.00	3.7100	.71031
Valid N (listwise)			100		

Overall, the results indicate that young adults in Kerala generally perceive digital payments positively, have moderately adopted digital payment apps, and report changes in their spending habits following adoption. The standard deviations, though moderate, suggest that while the general trends are positive, individual experiences and perceptions vary, offering a nuanced view of the impact of digital payments on consumer behavior in this demographic.

4.4 Correlation Analysis

The correlation analysis conducted in this study examines the relationships between three key variables: perception of digital payments, adoption of digital payment apps, and spending habits among young adults in Kerala. The results reveal significant correlations between these variables, shedding light on how they interact and influence one another within the context of digital payment usage.

The Pearson correlation coefficient between the perception of digital payments and the adoption of digital payment apps is 0.335, with a p-value of 0.001, indicating a positive and statistically significant relationship at the 0.01 level. This suggests that individuals with a more favorable perception of digital payments are more likely to adopt digital payment apps. The correlation,

while moderate, underscores the importance of perception in driving the adoption of new technologies. Users who view digital payments as convenient, secure, and beneficial are more inclined to embrace these apps, integrating them into their daily financial activities.

The relationship between the perception of digital payments and spending habits is also significant, with a Pearson correlation coefficient of 0.413 and a p-value of 0.000. This stronger correlation indicates that a positive perception of digital payments is associated with notable changes in spending habits. Participants who perceive digital payments favorably tend to experience shifts in how they manage and allocate their finances, likely due to the ease and accessibility that digital payment methods provide.

The most robust correlation observed is between the adoption of digital payment apps and spending habits, with a Pearson correlation coefficient of 0.726 and a p-value of 0.000. This strong positive correlation indicates that the more frequently individuals adopt and use digital payment apps, the more their spending habits are influenced. The high correlation coefficient suggests that digital payment apps significantly impact consumer behavior, potentially leading to increased spending or changes in spending patterns due to the convenience and immediacy of these platforms.

Table 17: Correlation Analysis

		Perception of Digital Payments	Adoption of Digital Payment Apps	Spending Habits
Perception of Digital Payments	Pearson Correlation	1	.335**	.413**
	Sig. (2-tailed)		.001	.000
	N	100	100	100
Adoption of Digital Payment Apps	Pearson Correlation	.335**	1	.726**
	Sig. (2-tailed)	.001		.000
	N	100	100	100
Spending Habits	Pearson Correlation	.413**	.726**	1
	Sig. (2-tailed)	.000	.000	
	N	100	100	100

**. Correlation is significant at the 0.01 level (2-tailed).

Overall, the correlation analysis confirms that perception plays a crucial role in the adoption of digital payment apps, which in turn significantly influences spending habits. The findings highlight the interconnected nature of these variables and emphasize the importance of enhancing positive perceptions of digital payments to encourage broader adoption and subsequent changes in consumer behavior. The strong correlation between adoption and spending habits particularly

underscores the transformative effect digital payment technologies have on financial behavior among young adults in Kerala.

4.5 Regression Analysis

4.5.1 Analyzing the Perception of Young Adults in Kerala Towards the Impact of Digital Payments on Their Spending Habits

The analysis aimed to evaluate the perception of young adults in Kerala towards digital payments and how these perceptions impact their spending habits. The regression analysis was conducted to determine the influence of various aspects of digital payments, such as convenience, security, tracking ability, budgeting ease, and reliability, on the spending habits of the participants.

The regression model revealed that not all perceptions of digital payments significantly influence spending habits. The constant term in the model has a significant positive value ($B = 2.256$, $p < 0.001$), indicating that, on average, other factors aside from the variables in the model contribute to spending habits.

The perception that "digital payments are more convenient for everyday transactions compared to using cash" has a positive but non-significant effect on spending habits ($B = 0.065$, $p = 0.430$). This suggests that while convenience is appreciated, it does not significantly alter how young adults in Kerala manage their spending.

Regarding security, the belief that "digital payment methods are secure and protect personal financial information" shows a negative and non-significant relationship with spending habits ($B = -0.031$, $p = 0.736$). This implies that, despite concerns about security, these do not significantly deter or enhance the impact on spending behaviors.

The perception that "using digital payments helps track spending more effectively by providing detailed transaction records" also did not significantly influence spending habits ($B = 0.050$, $p = 0.654$). While detailed transaction records are an essential feature of digital payments, this does not seem to strongly influence spending patterns among the respondents.

The belief that "digital payments make it easier to manage budgets by providing quick access to spending history" also shows a negative but non-significant effect on spending habits ($B = -0.023$, $p = 0.824$). This suggests that ease of budgeting, though useful, does not play a crucial role in shaping spending habits.

However, the perception that "digital payment methods are reliable and trustworthy for completing transactions" significantly impacts spending habits ($B = 0.321$, $p = 0.002$). This indicates that trust and reliability in digital payment methods are critical factors that positively influence spending

behaviors. Participants who perceive digital payments as reliable and trustworthy are more likely to have their spending habits influenced, likely due to increased confidence in using these methods for their transactions.

Table 18: Regression Analysis (a)

Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.256	.366		6.167	.000
	Digital payments are more convenient for everyday transactions compared to using cash.	.065	.082	.097	.792	.430
	I believe that digital payment methods are secure and protect my personal financial information.	-.031	.090	-.036	-.338	.736
	Using digital payments helps me track my spending more effectively by providing detailed transaction records.	.050	.111	.067	.450	.654
	Digital payments make it easier for me to manage my budget by giving me quick access to my spending history.	-.023	.101	-.027	-.223	.824
	I find digital payment methods to be reliable and trustworthy for completing transactions.	.321	.103	.404	3.125	.002

a. Dependent Variable: Spending Habits

Overall, while several perceptions of digital payments are acknowledged, reliability and trustworthiness stand out as the most influential factors affecting the spending habits of young adults in Kerala. This finding highlights the importance of enhancing trust in digital payment systems to foster changes in consumer behavior.

4.5.2 Examining the Changes in Spending Patterns Across Different Categories Among Young Adults in Kerala After Adopting Digital Payment Apps

The objective of this analysis is to assess how adopting digital payment apps has influenced spending patterns across various categories, such as retail, dining, and entertainment, among young adults in Kerala. The regression analysis was conducted to evaluate the relationship between the use of digital payment apps and changes in spending habits within these categories.

The constant in the model is statistically significant ($B = 1.159$, $p < 0.001$), indicating that other factors not included in the model have a substantial impact on spending habits. The variable

"Which digital payment apps do you currently use?" does not significantly impact spending habits (B = -0.049, p = 0.395). This suggests that the type of digital payment apps used by respondents does not play a crucial role in altering their spending habits, meaning the frequency and context of app use might be more influential.

A significant finding is related to online shopping behavior. The statement, "Since I started using digital payment apps, I spend more on online shopping compared to traditional retail stores," shows a positive and significant impact on spending habits (B = 0.158, p = 0.006). This indicates that the adoption of digital payment apps has encouraged young adults to shift their spending from traditional retail to online shopping, likely due to the convenience and accessibility of digital payments in online platforms.

Similarly, the influence of digital payment apps on dining habits is also significant. The statement, "Digital payment apps have led me to spend more on dining out compared to cooking at home," has a positive and statistically significant relationship with spending habits (B = 0.216, p < 0.001). This suggests that the ease of using digital payments in restaurants and cafes might contribute to increased spending on dining out.

However, the statement, "I find that my spending on entertainment activities (e.g., movies, concerts) has increased since using digital payment apps," does not significantly influence spending habits (B = 0.014, p = 0.815). This indicates that digital payments might not be a key factor in driving increased spending in entertainment activities, possibly due to other factors like personal interest or availability of such activities.

The analysis also reveals that the use of digital payment apps does not significantly change the way respondents budget for their monthly expenses (B = 0.135, p = 0.111). This suggests that while digital payments may influence spending in specific categories, they do not substantially alter overall budgeting practices.

The statement, "I am more likely to make spontaneous purchases on apps or online platforms than I was before using digital payment apps," shows a significant positive impact on spending habits (B = 0.198, p = 0.003). This implies that digital payment apps may encourage impulsive buying behavior, likely due to the ease and speed of transactions.

Table 19: Regression Analysis (b)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.159	.236		4.901	.000

	Which digital payment apps do you currently use? (Select all that apply)	-.049	.057	-.058	-.854	.395
	Since I started using digital payment apps, I spend more on online shopping compared to traditional retail stores.	.158	.056	.225	2.814	.006
	Digital payment apps have led me to spend more on dining out compared to cooking at home.	.216	.057	.315	3.787	.000
	I find that my spending on entertainment activities (e.g., movies, concerts) has increased since using digital payment apps.	.014	.058	.020	.235	.815
	The use of digital payment apps has changed the way I budget for monthly expenses in various categories.	.135	.084	.164	1.610	.111
	I am more likely to make spontaneous purchases on apps or online platforms than I was before using digital payment apps.	.198	.064	.287	3.090	.003

a. Dependent Variable: Spending Habits

Overall, the findings suggest that adopting digital payment apps significantly impacts spending patterns in specific categories, particularly online shopping, dining out, and impulsive purchases. However, the type of digital payment app used and spending in entertainment categories do not show a significant influence on overall spending habits. This highlights the need to consider how digital payment apps are integrated into daily life and how they might shift consumer behaviors in particular areas.

4.6 Summary

The analysis using SPSS indicates that the relationship between the perception of digital payments and spending habits (H1) was not supported. The regression results showed that while perceptions of digital payments (e.g., convenience, security) were acknowledged, they did not significantly impact spending habits. However, the adoption of digital payment apps (H2) was supported, revealing significant shifts in spending patterns, particularly towards online shopping and dining out. Lastly, hypothesis H3 was also supported, as the increased frequency of using digital payment apps led to higher likelihoods of spontaneous purchases, highlighting the influence of digital payments on consumer spending behavior.

Table 20: Summary of Analysis and Hypotheses

Hypotheses	Supported/Not Supported
H1: There is a significant relationship between the perception of young adults in Kerala towards digital payments and their spending habits.	Not Supported
H2: The adoption of digital payment apps leads to significant changes in spending patterns across different categories among young adults in Kerala.	Supported
H3: Digital payment frequency significantly affects spending habits among young adults in Kerala.	Supported

5 DISCUSSION

In this chapter, the results are examined in light of existing literature to understand how digital payments influence spending habits among young adults in Kerala. The analysis focuses on factors such as convenience, security, and the frequency of digital payment usage. By contrasting these findings with established research, the discussion aims to offer a nuanced perspective on the impact of digital payments on financial behaviors, highlighting both consistent and divergent trends compared to previous studies.

5.1 Perception of Young Adults in Kerala Towards the Impact of Digital Payments on Their Spending Habits

The findings of this study on young adults' perception of the effect of digital payments on their expenditure patterns in Kerala are as follows. One common theme is that the conception of convenience in digital payments while primarily viewed positively, does not fundamentally transform consumption patterns. This finding supports theories that although the convenience improves the user satisfaction, it does not necessarily imply a significant shift in the expenditure (Dahlberg et al., 2008). In this particular study, Convenience was noted to be acknowledged by most of the respondents, but did not influence spending in a big way. This means that although convenience is considered a desirable characteristic of financial products, it can on its own may not be sufficient to change the behaviours of users. This finding supports the argument that while perceived ease of use is relevant it may not be adequate to prompt considerable change in behavior without the backing of other factors such as perceived usefulness and security.

However, the confidence on digital payment methods was less aligned with the actual spending where the corresponding index was relatively lower. Overall, whilst there was majority confidence in security of digital payments, this perception further did not influence their spending behaviour. This finding is in line with other research pointing out that, although security factors are important in the choice of a technology, they may not necessarily affect a user's behaviour regarding expenditure (Gao & Waechter, 2017). The moderate and insignificant correlation between security perceptions and spending means that although security is a factor, it might not be the main determinant of how young adults in Kerala spends its money.

Moreover, the opinion that digital payments allow for tracking expenses with the help of numerous transactions did not affect the spending behaviour either. While this feature was liked by many, its influence on the real consumption behavior remained rather limited. This observation supports arguments made in literature that even though users consider the ability to track spending as

beneficial, it is not very effective in changing expenditure behaviour (Phonthanukitithaworn et al., 2015). The positive attitude toward this feature reflects the perceived usefulness of this feature but the results suggest that it is not a very strong motivator for people to change their spending patterns. Likewise, the confidence that digital payments help with money management by enabling users to view spending history at any time had no influence on spending patterns. This is in line with literature that although budgeting tools are useful, their effectiveness in controlling spending could be moderate (Sahi et al., 2022). However, while the existence of budgeting has been recognized to be advantageous, its effectiveness to impact on the spending behavior of the people remains questionable.

The most interesting thing that was discovered by the study was the effect of trust and reliability on the level of expenditures. Those with a higher level of perceived credibility of digital payments showed a much greater degree of 'impact' on their spending patterns. This result is in sync with literature highlighting the potential of trust as a key driver of user experience with respect to digital payment systems (Lee, Gan & Liew, 2022). The close relationship between trust and expenditure patterns is evident, which means that there is need to encourage consumers to embrace digital payment procedures.

In summary, it can be concluded that though the factors like convenience, security, and tracking capabilities are important, they do not influence people's spending patterns significantly. On the other hand, trust and reliability become some of the key variables that affect spending patterns. These findings confirm the results found in the literature review and emphasize that there is a lack of awareness of the target users and the possibility to improve their financial decisions and digital payment acceptance.

5.2 Examining Changes in Spending Patterns Across Different Categories

Financial management through digital payment apps has brought significant changes in the expenditure profile of youth in Kerala across segments like retail, food, and entertainment. By looking at the data, there is a rise of online purchases mainly caused by the ease of making payment online. This is consistent with prior research that shows that the use of digital forms of payments increases consumption among consumers by minimizing the costs of using cash. For example, San (2024)'s study shows that there is a significant correlation between the use of mobile wallet and impulsive buying which can also explain why consumers spend more when using digital payments.

The results in the current study reveal that digital payments are indeed changing consumer behavior especially when switching from physical stores to online shopping.

In the same way, the analysis indicates that there is a significant rise in expenditure on eating out associated with the convenience of payments and many promotions promoted by the payment applications. This is in line with the findings of prior studies that reveal that digital payments enable greater spending in sectors such as dining out because of the ease that is associated with it and the ability to track the expenditure in real-time (Jeyadevi & Duraisamy, 2023). The study findings of dining out expenditure affirm the literature by asserting that digital payment systems make payment faster and thus promote the use of restaurants.

However, the effect on entertainment expenditure seems to be relatively smaller. There was no evidence of increases in spending for entertainment activities, therefore other factors may be more relevant to this category. This is a somewhat mixed finding as other research associate the use of digital payment systems with higher spending in various discretionary categories. The failure to observe a substantial effect on entertainment expenditure could be due to interests or the presence of other forms of entertainment that may outcompete digital payment.

Moreover, the study also shows that even though digital payment is linked to the propensity to buy on impulse, it does not affect the general budgeting. This indicates that although consumers use digital payments to make more impulse purchases, they still follow a similar spending pattern for every month. This observation bears testimony to the literature's reporting of digital payments on the dual use of the financial flexibility instrument and the propensity for impulsive buying (Bhoopathy & Kanagaraj, 2023; San, 2024).

In sum, this study provides insights to differentiate the effects of adopting digital payment on consumers' spending behaviour. The change in the shopping and eating out expenses shows the convenience and promotional features of the digital payments, yet the level of entertainment expenses does not demonstrate the same trends, proving that digital payments are only one of the factors that affect the consumer behavior. These findings help to extend knowledge of the ways in which digital payment technologies are changing consumption patterns of young people in Kerala in terms of enabling more spending on specific categories, as well as encouraging impulse purchasing.

5.3 Exploring the Influence of Digital Payment Frequency on Spending Habits

Analysis of the relationship between the frequency of using digital payments and the spending habits of young adults in Kerala is insightful. The analysis was to assess whether there is a positive correlation between the level of adoption of digital payment methods and impulsive or controlled spending behaviors. The results imply that despite the fact that digital payments are convenient and easy, the effects on expenditures may be diverse. The research studies suggest that consumer's choice of digital payments might result in higher spending as psychological barriers to spending are lowered. This observation is in line with the prior literature which suggests that digital payment methods lead to the spending of more money due to the psychological distance that is created when one is using digital money. For example, Putrevu and Mertzanis (2023) pointed out that the simplicity of the instantaneous purchases makes people more careless in their spending. In the same vein, Bhoopathy and Kanagaraj (2023) posit that the more often consumers engage in use of digital payments, the higher the likelihood of impulse purchasing because of convenience inherent in the mode of payment. This conformity to prior studies asserts that often use of digital payments can, in fact, change people's spending behaviour and can make them probably more susceptible to higher spending.

Considering the regression analysis results, the author found out that not all the perceptions regarding digital payments have an influence on spending patterns. For example, although convenience, security and tracking capacity of using digital payment methods were taken into account, their impact on spending patterns was not revealed. This finding implies that these factors alone are not compelling enough to explain how young adults handle their monetary affairs. However, the reliability and trustworthiness of digital modes of payment were found to be strongly influential in determining consumers' propensity to spend. The positive impact of digital payments on peoples' spending behaviors can be explained by the participants' perception on the reliability and trustworthiness of the payments. This is in line with the literature that discusses trust in the digital financial systems as a key factor that determines the user's behaviour (San, 2024). However, evaluating the effect of digital payments on different categories of expenditure including online shopping and eating out shows the differential influence of the innovation. The results proved that there was a drastic rise in online buying of goods and services as well as the spending done while eating out, illustrating the effectiveness of digital payments in boosting spending in these sectors. This is in line with the previous research by Singh and Rana (2017) which also established that,

when consumers embrace digital payment methods, they tend to spend more in certain sectors. But the fact that entertainment expenditure and other overall budgeting have remained negligible has demonstrated that, despite the fact that digital payments can drive particular spending patterns, this is not entirely accurate. This understanding is in line with prior research, and also offers a more refined insight into how the frequency of using digital payments coexists with spending patterns among young people from Kerala.

6 CONCLUSION

This chapter synthesizes the research findings on the impact of digital payments on the spending habits of young adults in Kerala, offering interpretations and implications that answer the research questions posed at the outset. These include research conclusions, recommendations, and limitations and contributions as well as recommendations on future research.

6.1 Research Conclusions

- **Understanding the Influence of Digital Payments:** The study finds out that the use of digital payments has enhanced the ease of making transactions among the youth in Kerala. The study also reveals that due to the convenience digital methods are preferred over cash as 79% of the respondents have preferred digital payments for their day to day expenses. This is in line with the general literature where the confirmation is that convenience is the key determinant of the use of the digital payment systems (Bhoopathy & Kanagaraj, 2023; Lee, Gan & Liew, 2022). However, although convenience contributes to improving the perception of users, it does not affect the increase in the volume of spending. As such, this result presents a subtler approach to indicate that the availability of digital payments does not necessarily lead to changes in the financial behaviour.
- **Perceived Security and Spending Behaviors:** One noteworthy finding is that perceived security has a relatively small effect on spending behavior. Even though, 53% of the respondents are confident that digital payments are secure, this confidence does not affect their expenditure significantly. This result aligns with literature that have pointed out that security factors are critical to the use of digital payment platforms but not very effective in changing people's financial behavior (Achutamba & Hymavathi, 2022; Angamuthu, 2020). The results of the study also suggest that security is a key factor in the decision to adopt a technology but it doesn't continue to motivate behavioral changes in spending.
- **Trust and Reliability as Key Influencers:** This has led to the establishment of trust and reliability as key determinates of spending behavior. In particular, to the extent that participants consider digital payments to be trustworthy they are likely to demonstrate more significant shifts in their consumption patterns. This explains why consumer confidence in digital payment methods has to be cultivated and sustained at all times. This is in support of the study which shows that perceived trust in digital payment systems is more influential in the decisions to spend than perceived security (Joshi & Desai, 2017; Agarwal et al., 2018).

- **Shifts in Spending Patterns:** The changes in spending patterns are captured and presented in this analysis with emphasis on the following. Mobile payments have enhanced consumption of products and services online as well as eating out due to benefits inherent in mobile payments. Such findings endorse literature that indicates that digital payments lead to more frequent and impulse buying behavior (Bhoopathy & Kanagaraj, 2023; San, 2024). Nevertheless, the improvement in entertainment spending is not significant, which means that digital payments are not the only reason for the change in consumers' behavior. This is an indication that digital payments affect some or rather specific categories of expenditure and not the entire expenditure.
- **Complexity of Behavioral Changes:** The study emphasizes the fact that while consumers appreciate the benefits associated with digital payments and other related features, the impact on spending pattern is multifaceted and depends on the category. The study complements the current body of knowledge in the literature by providing more insight on how technological advancements in the form of digital payment technologies are influencing the financial transactions among young adult in Kerala with trust as a factor influencing spending. Such a state of affairs underlines the necessity of the differentiated approach in assessing the influence of the digital payments on the consumers.

6.2 Recommendations

Based on the research findings, several practical recommendations can be made:

- **Enhance Trust and Reliability:** The key emphasis areas should be made on the issues of trust and reliability of financial institutions and digital payment providers. This entails enhancing the quality of service delivery to the customers, being more communicative while reassuring the clients on security aspects. It is expected that constructing a strong trust framework will result to more significant alterations in the spending patterns.
- **Promote Financial Literacy:** Improving the public awareness of the topic can prevent the tendency of users blindly trusting the digital payments systems and their reliability as well as to understand the positive and negative aspects of the given type of the monetary systems. There is a need to create educational content to enhance the knowledge of users about the existence of the technologies used in digital payments and their influence on users' financial services.

- **Tailor Promotional Offers:** Mobile payment solutions must introduce a system of bonuses and special offers that will stimulate spending in certain segments. With regard to the remaining portions of the spending basket, it could be noted that there is more spending on online shopping and dining out; however, with the help of specific promotion, it is possible to shape the outcomes in such areas as entertainment.
- **Address Security Concerns:** Despite the fact that perceived security does not have a strong influence on spending behaviours, it is relevant to continue working on enhancing security and ensuring the population is aware of such enhancements. Maintaining strong security elements and resolving any possible issues will help to maintain and strengthen the trust and usage.

6.3 Limitations and Contributions

There are several limitations to the study. The study is confined to Kerala which may not be generalized to other regions with different rates of digital payment and spending. Also, it is important to note that the study is based on self-reports and cross-sectional data, which may bring some biases and do not allow studying trends within time. Nevertheless, the findings of the study offer significant insights on how digital payments influence the expenditure patterns of young people and help expand the knowledge base on the ways in which digital payment systems affect consumers.

6.4 Suggestions for Further Research

Future research should aim at investigating the effects of digital payments on spending patterns in other geographical and/or age segments to offer a broader perspective to the problem. Some of the advantages could include; Longitudinal studies could help explain how spending is dynamic with more use of digital payments. However, it is also possible to focus on other variables, for example, the impact of the socioeconomic status or digital literacy on the spending behavior and include it into the analysis to provide deeper insights in the impact of digital payments.

6.5 Final Reflection

This research highlights the complex relationship between digital payments and consumer spending behaviors. While digital payments offer significant convenience and have led to shifts in spending patterns, their impact on financial behavior is multifaceted and influenced by factors such as trust and reliability. The study underscores the need for a nuanced approach to understanding

how digital payment technologies affect consumer behavior and offers practical recommendations for enhancing trust and promoting financial literacy. As digital payment systems continue to evolve, ongoing research will be crucial in understanding their broader implications and ensuring their effective integration into consumers' financial lives.

7 REFERENCES

A.Anandalakshmy, Sajeer.Cdr. (2023). Digital Financial Literacy among Working Women in Kerala:a Study with Special Reference to Malappuram District. *Tuijin jishu*, 44(4), pp.2881–2892. doi:https://doi.org/10.52783/tjjpt.v44.i4.1378.

Achutamba, V. and Hymavathi, D.C. (2022). Impact of Covid-19 on Digital Payments in India. *Journal of Positive School Psychology*, [online] 6(3), pp.4394–4400. Available at: https://www.journalppw.com/index.php/jpsp/article/view/2459.

Agarwal, S., Basu, D., Ghosh, P., Pareek, B. and Zhang, J. (2018). Demonetization and Digitization. *SSRN Electronic Journal*. doi:https://doi.org/10.2139/ssrn.3197990.

Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, [online] 50(2), pp.179–211. doi:https://doi.org/10.1016/0749-5978(91)90020-T.

Amoroso, D.L. and Magnier-Watanabe, R. (2012). Building a Research Model for Mobile Wallet Consumer Adoption: The Case of Mobile Suica in Japan. *Journal of theoretical and applied electronic commerce research*, [online] 7(1), pp.13–14. doi:https://doi.org/10.4067/s0718-18762012000100008.

Ates, B. and Odzic, D. (2023). *THE IMPACT OF PERSONALIZATION ON CONSUMER PURCHASE INTENTION IN ONLINE SHOPPING*. [online] Available at: https://www.diva-portal.org/smash/get/diva2:1760914/FULLTEXT01.pdf.

Authornmims, B. (2020). *Growth of Digital Payments in India*. [online] Journal of Economics and Public Policy. Available at: https://epp-journal.nmims.edu/2020/10/growth-of-digital-payments-in-india/ [Accessed 19 Jul. 2024].

Badak, S., Kolte, V., Agrawal, M. and Gupta, S. (2024). https://www.researchgate.net/publication/378076558_Revolution_of_Digital_Payment_in_India.

Bell, E. and Bryman, A. (2015). *Business Research Methods*. 6th ed. Oxford: Oxford University Press.

Bhoopathy, G. and Kanagaraj (2023). The Impact of Digital Payments on Consumer Spending Habits [1]. *Tuijin Jishu/Journal of Propulsion Technology*, [online] 44(4), pp.1001–4055. Available at: https://www.propulsiontechjournal.com/index.php/journal/article/download/1896/1294/3246.

Bhoopathy, G. and Kanagaraj, J. (2023). The Impact of Digital Payments on Consumer Spending Habits [1]. *Tuijin Jishu/Journal of Propulsion Technology*, [online] 44(4), pp.1001–4055. Available at: https://www.propulsiontechjournal.com/index.php/journal/article/download/1896/1294/3246 [Accessed 19 Jul. 2024].

Bitto Urbanova, L., Madarasova Geckova, A., Dankulincova Veselska, Z., Capikova, S., Holubcikova, J., van Dijk, J.P. and Reijneveld, S.A. (2023). Technology supports me: Perceptions of the benefits of digital technology in adolescents. *Frontiers in Psychology*, 13. doi:https://doi.org/10.3389/fpsyg.2022.970395.

Bolodeoku, P.B., Igbinoba, E., Salau, P.O., Chukwudi, C.K. and Idia, S.E. (2022). Perceived usefulness of technology and multiple salient outcomes: the improbable case of oil and gas workers. *Heliyon*, 8(4), p.e09322. doi:https://doi.org/10.1016/j.heliyon.2022.e09322.

Br, P. and Rao Nethravathi, P.S. (2021). Paytm's Journey Towards Digital Payment in India – A Case Study. *International Journal of Case Studies in Business, IT, and Education*, pp.125–141. doi:https://doi.org/10.47992/ijcsbe.2581.6942.0125.

CARD91 (2023). *Digital Payments: Revolutionising India's Financial Landscape – CARD91*. [online] Available at: https://www.card91.io/digital-payments-revolutionising-indias-financial-landscape/ [Accessed 19 Jul. 2024].

Cariaga, R.F., Arcadio, R.D., Medio, G.J., Almendras, R.C., Bendanillo, A. and Fabillar, J.R.G. (2023). E-money and the Reasons Why Young Consumers Prefer this Technology. *Journal of Ongoing Educational Research*, [online] 1(1), pp.23–29. doi:https://doi.org/10.5281/zenodo.8241756.

Caruana, E., Roman, M., Hernández-Sánchez, J. and Solli, P. (2015). Longitudinal Studies. *Journal of Thoracic Disease*, [online] 7(11), pp.537–540. doi:https://doi.org/10.3978/j.issn.2072-1439.2015.10.63.

Chaudhary, G., Joshi, S., Bhardwaj, V. and Annu (2023). AN INVESTIGATION OF THE CUSTOMER PREFERENCES TOWARDS DIGITAL PAYMENTS IN INDIA. *International Research Journal of Modernization in Engineering Technology and Science*, 5(4). doi:https://doi.org/10.56726/irjmets36534.

Collis, J. and Hussey, R. (2013). *Business Research : a Practical Guide for Undergraduate and Postgraduate Students*. 4th ed. Basingstoke: Hampshire.

Creswell, J.W. (2014). *Research Design: Qualitative, quantitative, and Mixed Methods Approaches*. 4th ed. London: Sage Publications Ltd.

Creswell, J.W. and Plano Clark, V.L. (2007). *Designing and Conducting Mixed Methods Research*. Los Angeles: SAGE.

Creswell, J.W. and Poth, C.N. (2013). *Qualitative inquiry & research design : choosing among five approaches*. Thousand Oaks: Sage Publications, Inc.

Dahlberg, T., Mallat, N., Ondrus, J. and Zmijewska, A. (2008). Past, present and future of mobile payments research: A literature review. *Electronic Commerce Research and Applications*, 7(2), pp.165–181. doi:https://doi.org/10.1016/j.elerap.2007.02.001.

De La Rosa, W. and Tully, S.M. (2021). The Impact of Payment Frequency on Consumer Spending and Subjective Wealth Perceptions. *Journal of Consumer Research*, 48(6). doi:https://doi.org/10.1093/jcr/ucab052.

Deloitte (2015). *Digital India: Unleashing Prosperity Knowledge Partner*. [online] Available at: https://www2.deloitte.com/content/dam/Deloitte/in/Documents/technology-media-telecommunications/in-tmt-tele-tech-2015-noexp.pdf.

Dev, H., Gupta, R. and Kumar, D. (2024). *From Cash to Cashless: UPI's Impact on Spending Behavior among Indian Users*. [online] arxiv.org. Available at: https://arxiv.org/html/2401.09937v2.

European Central Bank (2019). *Electronic money*. [online] European Central Bank. Available at: https://www.ecb.europa.eu/stats/money_credit_banking/electronic_money/html/index.en.html.

Fouillet, C., Guérin, I. and Servet, J.-M. (2021). Demonetization and digitalization: The Indian government's hidden agenda. *Telecommunications Policy*, 45(2), p.102079. doi:https://doi.org/10.1016/j.telpol.2020.102079.

Franciska, A.Martina. and Sahayaselvi, S. (2017). An Overview On Digital Payments. *International Journal of Research*, 4(13).

Gao, L. and Waechter, K.A. (2017). Examining the role of initial trust in user adoption of mobile payment services: an empirical investigation. *Information Systems Frontiers*, 19(3), pp.525–548. doi:https://doi.org/10.1007/s10796-015-9611-0.

Garg, R. (2016). Methodology for research. *Indian Journal of Anaesthesia*, 60(9), p.640. doi: https://doi.org/10.4103/0019-5049.190619.

Ghosh, G. (2021). *(PDF) Adoption of Digital Payment System by Consumer: A review of Literature*. [online] ResearchGate. Available at: https://www.researchgate.net/publication/349212193_Adoption_of_Digital_Payment_System_by_Consumer_A_review_of_Literature.

Green, S.B. (1991). How Many Subjects Does It Take to Do A Regression Analysis. Multivariate Behavioral Research, [online] 26(3), pp.499–510. doi: https://doi.org/10.1207/s15327906mbr2603_7.

Gunawan, F., Ali, M.M. and Nugroho, A. (2019). Analysis of the Effects of Perceived Ease of Use and Perceived Usefulness on Consumer Attitude and Their Impacts on Purchase Decision on PT Tokopedia In Jabodetabek. *European Journal of Business and Management Research*, 4(5). doi:https://doi.org/10.24018/ejbmr.2019.4.5.100.

Gupta, S. (2024). Revolution of Digital Payment in India. [online] Available at: https://www.researchgate.net/publication/378076558_Revolution_of_Digital_Payment_in_India.

Hazar, A. and Babuscu, Ş. (2023). Financial Technologies: Digital Payment Systems and Digital Banking. Today's Dynamics. *Journal of Research Innovation and Technologies (JoRIT)*, pp.162–162. doi:https://doi.org/10.57017/jorit.v2.2(4).04.

Jeyadevi J, C. and Duraisamy, M. (2023). A STUDY ON THE IMPACT OF DIGITAL PAYMENT IN BEHAVIOURAL CHANGES ON CONSUMERS AND VENDORS. *JOURNAL OF THE ASIATIC SOCIETY OF MUMBAI*, XCVI(24).

Joshi, M.C. and Desai, J.N. (2017). Digital Payment System: Before, During and After Demonetisation. [online] Available at:

https://www.researchgate.net/publication/331001070_Digital_Payment_System_Before_During_and_After_Demonetisation.

Krishnadas, S. (2018). A STUDY ON THE TRENDS AND PATTERNS OF CONSUMER BEHAVIOUR OF COLLEGE STUDENTS. *JETIR*, [online] 5(5). Available at: https://www.jetir.org/papers/JETIR1805899.pdf [Accessed 19 Jul. 2024].

Kulkarni, S. and Varma, A.J. (2021). A Literature Study Of Consumer Perception Towards Digital Payment Mode In India. *Psychology and Education Journal*, 58(1), pp.3304–3319. doi:https://doi.org/10.17762/pae.v58i1.1270.

Kumar, D.B. (2020). IMPACT OF DIGITAL INDIA ON INDIAN ECONOMY. *International Education and Research Journal (IERJ)*, [online] 6(3). Available at: http://ierj.in/journal/index.php/ierj/article/view/1982 [Accessed 19 Jul. 2024].

Kumar, D.S., Sudin, H., Othman, J. and Salehuddin, S. (2022). The Influence of Spending Behaviour Among University Students in Malaysia. *Asian Journal of Accounting and Finance*. doi:https://doi.org/10.55057/ajafin.2022.4.3.3.

Kumar, S. and Gupta, A. (2023). *Cashless Economy and the Unified Payments Interface: India's Digital Tryst with Financial Inclusion*. [online] Available at: https://static1.squarespace.com/static/579fc2ad725e253a86230610/t/6498569882491c089b2ea9af/1687705240945/330780+FF+47-2+Guha+and+Gupta.pdf.

Lee, C., Skillen, M. and Nasraldeen, R. (2022). Fintech and Young Adult Consumers PREPARED BY. [online] doi:https://doi.org/10.26183/1xsg-h976.

Lee, Y.Y., Gan, C.L. and Liew, T.W. (2022). Do E-wallets trigger impulse purchases? An analysis of Malaysian Gen-Y and Gen-Z consumers. *Journal of Marketing Analytics*, 11. doi:https://doi.org/10.1057/s41270-022-00164-9.

Linck, K., Key, P. and Georg, D. (2006). *Security Issues in Mobile Payment from the Customer Viewpoint*. [online] Available at: https://mpra.ub.uni-muenchen.de/2923/1/MPRA_paper_2923.pdf.

Lohana, S. and Roy, D. (2021). Impact of Demographic Factors on Consumer's Usage of Digital Payments. *FIIB Business Review*, 12(4), p.231971452110495. doi:https://doi.org/10.1177/23197145211049586.

Manocha, S., Kejriwal, R. and Upadhyaya, A. (2019). The Impact of Demonetization on Digital Payment Transactions: A Statistical Study. *SSRN Electronic Journal*. doi:https://doi.org/10.2139/ssrn.3446558.

Menon, R.G. (2024). *India's digital payments market looks beyond its borders*. [online] www.thebanker.com. Available at: https://www.thebanker.com/India-s-digital-payments-market-looks-beyond-its-borders-1692889695.

Merriam-Webster (2019). *Merriam-Webster Dictionary*. [online] Merriam-webster.com. Available at: https://www.merriam-webster.com/.

Mintel (2023). *Indian consumer spending trends: Younger generations seek pleasure, preventive health on the rise among parents | Mintel*. [online] www.mintel.com. Available at: https://www.mintel.com/press-centre/indian-consumer-spending-trends-younger-generations-seek-pleasure-preventive-health-on-the-rise-among-parents/.

Mishra, R. and Vyas, S. (2018). A STUDY ON IMPACT OF RELIANCE JIO ON DIGITAL MARKETING IN INDIA. *IJCRT*, [online] 6(2). Available at: https://ijcrt.org/papers/IJCRT1813415.pdf [Accessed 19 Jul. 2024].

Pal, A., De', R. and Herath, T. (2020). The Role of Mobile Payment Technology in Sustainable and Human-Centric Development: Evidence from the Post-Demonetization Period in India. *Information Systems Frontiers*, 22(3), pp.607–631. doi:https://doi.org/10.1007/s10796-020-09982-7.

Papadopoulos, G. (2007). Electronic Money and the Possibility of a Cashless Society. *SSRN Electronic Journal*. doi:https://doi.org/10.2139/ssrn.982781.

Park, Y.S., Konge, L. and Artino, A.R. (2020). The Positivism Paradigm of Research. Academic Medicine, [online] 95(5), pp.690–694. doi: https://doi.org/10.1097/ACM.0000000000003093.

Peneder, M. (2022). Digitization and the evolution of money as a social technology of account. *Journal of Evolutionary Economics*. doi:https://doi.org/10.1007/s00191-021-00729-4.

Phonthanukitithaworn, C., Sellitto, C. and Fong, M. (2015). User Intentions to Adopt Mobile Payment Services: A Study of Early Adopters in Thailand. *Journal of Internet Banking and Commerce*, 20(1).

Putrevu, J. and Mertzanis, C. (2023). The adoption of digital payments in emerging economies: challenges and policy responses. *Digital policy, regulation and governance*. doi:https://doi.org/10.1108/dprg-06-2023-0077.

Rathore, M. (2024). *Consumer spending in India from 2nd quarter of 2018 to 4th quarter of 2023*. [online] Statista. Available at: https://www.statista.com/statistics/233108/india-consumer-spending/.

Ravikumar, T., N, M., Jayaseelan, S. and Ravishankar, R. (2020). Digital Payments Diffusion in Emerging and Developed Economies. *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, 9(4).

Rawat, P., Muthulakshmi R, Hari Prasad Josyula, Kataria, A. and Sunil Rajaram Landge (2024). Consumer Perception And Adoption Of Digital Payment Methods: A Study On Trust And Security Concerns. *Educational Administration Theory and Practice journal*, 30(4), pp.6022–6029. doi:https://doi.org/10.53555/kuey.v30i4.2334.

RBI (2021). *Payment and Settlement Systems in India*. [online] Available at: https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/PSSBOOKLET93D3AEFDEAF14044BC1BB36662C41A8C.PDF.

Reinartz, W., Wiegand, N. and Imschloss, M. (2019). The Impact of Digital Transformation on the Retailing Value Chain. *International Journal of Research in Marketing*, [online] 36(3), pp.350–366. doi:https://doi.org/10.1016/j.ijresmar.2018.12.002.

Revate, S.S. (2021). Impact of Covid-19 on Digital Payment System. *Turkish Online Journal of Qualitative Inquiry*, [online] 12(3), pp.4793–4799. Available at: https://www.tojqi.net/index.php/journal/article/view/2161 [Accessed 19 Jul. 2024].

Rogers, E.M. (2003). *Diffusion of Innovations, 5th Edition*. *Google Books*. Simon and Schuster.

Sahi, A.M., Khalid, H., Abbas, A.F., Zedan, K., Khatib, S.F.A. and Al Amosh, H. (2022). The Research Trend of Security and Privacy in Digital Payment. *Informatics*, 9(2), p.32. doi:https://doi.org/10.3390/informatics9020032.

San, B.M. (2024). Money in the Digital Palm: The Role of Mobile Wallet Usage and Financial Literacy on Impulse Purchase Behavior of Youths in Myanmar. *3rd Spring Flowers International ConferenceAt: Indianapolis, IN, USA*.

Saunders, M., Lewis, P. and Thornhill, A. (2012). *Saunders, M., Lewis, P. and Thornhill, A. (2012) Research Methods for Business Students. Pearson Education Ltd., Harlow. - References - Scientific Research Publishing*. [online] www.scirp.org. Available at: https://www.scirp.org/reference/ReferencesPapers?ReferenceID=1353990.

Saunders, M., Lewis, P., Thornhill, A. and Bristow, A. (2019). *'Research Methods for Business Students' Chapter 4: Understanding Research Philosophy and Approaches to Theory Development*. [online] researchgate. Available at: https://www.researchgate.net/publication/330760964_Research_Methods_for_Business_Students_Chapter_4_Understanding_research_philosophy_and_approaches_to_theory_development.

Setia, M.S. (2016). Methodology Series Module 3: Cross-sectional Studies. *Indian Journal of Dermatology*, [online] 61(3), pp.261–264. doi:https://doi.org/10.4103/0019-5154.182410.

Sharma, S., Tiwari, N., Sinha, N., Chheda, A. and Jain, R. (2024). *How Urban India Pays*. [online] Available at: https://www.kearney.com/documents/d/asset-library-291362522/how-urban-india-pays.

Singh, S. and Rana, R. (2017). Study of Consumer Perception of Digital Payment Mode. *Journal of Internet Banking and Commerce*, [online] 22(3), pp.1–14. Available at: https://www.icommercecentral.com/open-access/study-of-consumer-perception-of-digital-payment-mode.php?aid=86419.

Statista (2024). *India: total volume of digital payments 2021*. [online] Statista. Available at: https://www.statista.com/statistics/1251321/india-total-volume-of-digital-payments/.

Suma, K. and Hema Divya, K. (2018). A study on Digital payments in India with perspective of consumers adoption. *International Journal of Pure and Applied Mathematics*, [online] 118(24). Available at: https://www.acadpubl.eu/hub/2018-118-24/2/378.pdf.

Tang, N. and Peter, P. (2015). Financial knowledge acquisition among the young: The role of financial education, financial experience, and parents' financial experience. *Financial Services Review*, [online] 24(2), pp.119–137. doi:https://doi.org/10.61190/fsr.v24i2.3237.

Trochim, W. and Donnelly, J.P. (2006). *The Research Methods Knowledge Base*. Mason, Oh: Atomic Dog Publishing.

Tsang, E.W.K. (2016). *Philosophy of Management Research*. Taylor and Francis.

Wan Nawang, W.R. and Shukor, S.A. (2023). Digital Financial Literacy Among Young Adults in Malaysia. *International Business Education Journal*, 16(2), pp.115–126. doi:http://dx.doi.org/10.37134/ibej.Vol16.2.9.2023.

Wu, K.-W., Huang, S.Y., Yen, D.C. and Popova, I. (2012). The effect of online privacy policy on consumer privacy concern and trust. *Computers in Human Behavior*, 28(3), pp.889–897. doi:https://doi.org/10.1016/j.chb.2011.12.008.

Yadav, V. and Das, A. (2024). Digital Payments in India - How Demonetization and Covid-19 Shaped Adoption? *SSRN*. doi:https://doi.org/10.2139/ssrn.4891333.

Zandi, M., Koropeckyj, S., Singh, V. and Matsiras, P. (2016). *The Impact of Electronic Payments on Economic Growth*. [online] Available at: https://corporate.visa.com/content/dam/VCOM/download/visa-everywhere/global-impact/impact-of-electronic-payments-on-economic-growth.pdf [Accessed 19 Jul. 2024].

Zhou, T. (2011). The effect of initial trust on user adoption of mobile payment. *Information Development*, 27(4), pp.290–300. doi:https://doi.org/10.1177/0266666911424075.

8 APPENDICES

8.1 Appendix A: Survey Questionnaire

The Impact of Digital Payments on Consumer Spending Habits: A Case Study of Young Adults Aged 18-25 in Kerala, India

Screening Questions

1. **Are you aged between 18 and 25 years old?**
   - Yes
   - No (If No, end of survey)
2. **Do you currently reside in Kerala, India?**
   - Yes
   - No (If No, end of survey)
3. **Do you use digital payment apps for transactions?**
   - Yes
   - No (If No, end of survey)

Section 1: Perceptions of Digital Payments

Objective: To analyze the perception of young adults in Kerala towards the impact of digital payments on their spending habits.

Instructions: Please indicate your level of agreement with the following statements about digital payments using the scale provided:
1 = Strongly Disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly Agree

1. Digital payments are more convenient for everyday transactions compared to using cash.
   - 1 = Strongly Disagree
   - 2 = Disagree
   - 3 = Neutral
   - 4 = Agree
   - 5 = Strongly Agree
2. I believe that digital payment methods are secure and protect my personal financial information.
   - 1 = Strongly Disagree
   - 2 = Disagree
   - 3 = Neutral
   - 4 = Agree
   - 5 = Strongly Agree
3. Using digital payments helps me track my spending more effectively by providing detailed transaction records.
   - 1 = Strongly Disagree
   - 2 = Disagree
   - 3 = Neutral

- 4 = Agree
- 5 = Strongly Agree

4. Digital payments make it easier for me to manage my budget by giving me quick access to my spending history.
   - 1 = Strongly Disagree
   - 2 = Disagree
   - 3 = Neutral
   - 4 = Agree
   - 5 = Strongly Agree
5. I find digital payment methods to be reliable and trustworthy for completing transactions.
   - 1 = Strongly Disagree
   - 2 = Disagree
   - 3 = Neutral
   - 4 = Agree
   - 5 = Strongly Agree

Section 2: Changes in Spending Patterns After Adopting Digital Payment Apps

Objective: To examine the changes in spending patterns across different categories (e.g., retail, dining, entertainment) among young adults in Kerala after adopting digital payment apps.

Instructions: Please indicate your level of agreement with the following statements regarding changes in your spending habits since you started using digital payment apps, using the scale provided:
1 = Strongly Disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly Agree

1. Which digital payment apps do you currently use? (Select all that apply)

   - Google Pay
   - PhonePe
   - Paytm
   - Amazon Pay
   - Apple Pay
   - Samsung Pay
   - Other (Please specify) _____

2. Since I started using digital payment apps, I spend more on online shopping compared to traditional retail stores.

   - 1 = Strongly Disagree
   - 2 = Disagree
   - 3 = Neutral

- 4 = Agree
- 5 = Strongly Agree

3. Digital payment apps have led me to spend more on dining out compared to cooking at home.
   - 1 = Strongly Disagree
   - 2 = Disagree
   - 3 = Neutral
   - 4 = Agree
   - 5 = Strongly Agree
4. I find that my spending on entertainment activities (e.g., movies, concerts) has increased since using digital payment apps.
   - 1 = Strongly Disagree
   - 2 = Disagree
   - 3 = Neutral
   - 4 = Agree
   - 5 = Strongly Agree
5. The use of digital payment apps has changed the way I budget for monthly expenses in various categories.
   - 1 = Strongly Disagree
   - 2 = Disagree
   - 3 = Neutral
   - 4 = Agree
   - 5 = Strongly Agree
6. I am more likely to make spontaneous purchases on apps or online platforms than I was before using digital payment apps.
   - 1 = Strongly Disagree
   - 2 = Disagree
   - 3 = Neutral
   - 4 = Agree
   - 5 = Strongly Agree

Section 3: Impact of Digital Payment Frequency on Spending Habits

Objective: To study the relationship between the frequency of digital payment usage and the spending habits of young adults in Kerala.

Instructions: Please indicate your level of agreement with the following statements regarding your spending habits and the frequency of your digital payment usage, using the scale provided:
1 = Strongly Disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly Agree

1. I use digital payments frequently, and this has increased my overall spending.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neutral
- 4 = Agree
- 5 = Strongly Agree

2. The more often I use digital payment methods, the more I find myself spending impulsively.
   - 1 = Strongly Disagree
   - 2 = Disagree
   - 3 = Neutral
   - 4 = Agree
   - 5 = Strongly Agree
3. Frequent use of digital payments has made it easier for me to track and manage my spending habits.
   - 1 = Strongly Disagree
   - 2 = Disagree
   - 3 = Neutral
   - 4 = Agree
   - 5 = Strongly Agree
4. I tend to spend more on non-essential items when I use digital payments regularly compared to when I use cash.
   - 1 = Strongly Disagree
   - 2 = Disagree
   - 3 = Neutral
   - 4 = Agree
   - 5 = Strongly Agree
5. My frequency of using digital payments directly influences my monthly budgeting and spending decisions.
   - 1 = Strongly Disagree
   - 2 = Disagree
   - 3 = Neutral
   - 4 = Agree
   - 5 = Strongly Agree

8.2 Appendix B: Ethics Plain Language Statement

PLAIN LANGUAGE STATEMENT

Introduction to the Research Study

Research Study Title: The Impact of Digital Payments on Consumer Spending Habits: A Case Study of Young Adults Aged 18-25 in Kerala, India

University: Griffith College, Graduate Business School.

Principal Investigator: Mildred Brown-Houston

Researcher Name: Riya Rose Payammel Rappai

Email: riyarosepayammel1998@gmail.com

II. Details of what involvement in the Research Study will require

This project involves participating in a survey aimed at examining the influence of digital payments on consumer spending habits among young adults in Kerala. The survey will gather information on your experiences and attitudes towards digital payment systems, focusing on how these systems impact your spending behavior. The survey is designed to take no longer than 15 minutes to complete.

III. Potential risks to participants from involvement in the Research Study (if greater than that encountered in everyday life) I do not anticipate any risk to participants as a result of participation in this Research Study.

IV. Benefits (direct or indirect) to participants from involvement in the Research Study
The objective of this Research Study is to gain new knowledge that will enable a better understanding of how digital payments influence consumer spending habits among young adults in Kerala. This study may, therefore, be of benefit to you by providing you with the opportunity to contribute to the body of knowledge on digital payments and consumer behavior. Your participation will help in developing more effective digital payment solutions and financial literacy programs, potentially benefiting you and society as a whole.

V. Advice as to arrangements to be made to protect the confidentiality of data, including that confidentiality of information provided is subject to legal limitations

Every effort is made to ensure the confidentiality of the participant. Participant names will not be recorded, as all participants will be assigned a code. Where used, recorded survey data will be downloaded to a password-controlled computer, typed survey results are held within password-controlled documents. Participant biographical details and or mention of other persons will be omitted in the final report. Confidentiality of information provided is subject to legal limitations.

VI. Advice as to whether or not data is to be destroyed after a minimum period
Survey data will be destroyed on the successful completion of this master's degree in full compliance with GDPR regulations.

VII. Statement that involvement in the Research Study is voluntary

Involvement in this Research Study is voluntary. Participants who decide to take part may withdraw from the Research Study at any point. There will be no penalty for withdrawing before all stages of the Research Study are complete..

If participants have concerns about this study and wish to contact an independent person, please contact:

Mildred Brown-Houston
Graduate Business School
Research Committee
Griffith College
South Circular Road, Dublin 8, Ireland

Email: mildred.brown-houston@griffith.ie

8.3 Appendix C: Informed Consent Form

INFORMED CONSENT FORM

I. Research Study Title: The Impact of Digital Payments on Consumer Spending Habits: A Case Study of Young Adults Aged 18-25 in Kerala, India

University: Griffith College, Graduate Business School.

Principal Investigator: Mildred Brown-Houston

Researcher Name: Riya Rose Payammel Rappai

Email: riyarosepayammel1998@gmail.com

II. Clarification of the purpose of the research

The aim of this research is to examine the influence of digital payments on consumer spending habits among young adults in Kerala. Furthermore, through a combination of your participation and the latest research into digital payment systems and consumer behavior, this research will add to the body of academic understanding of how digital payment adoption impacts spending patterns and financial behavior among young adults.

III. Confirmation of particular requirements as highlighted in the Plain Language Statement

This project involves participating in a survey aimed at examining the influence of digital payments on consumer spending habits among young adults in Kerala. The survey will gather information on your experiences and attitudes towards digital payment systems, focusing on how these systems impact your spending behavior. The survey is designed to take no longer than 15 minutes to complete.

Participant – please complete the following (Circle Yes or No for each question)

Have you read or had read to you the Plain Language Statement	Yes/No
Do you understand the information provided?	Yes/No
Have you had an opportunity to ask questions and discuss this study?	Yes/No
Have you received satisfactory answers to all your questions?	Yes/No
Are you aware that interviews will be audiotaped?	Yes/No

IV. Confirmation that involvement in the Research Study is voluntary

Involvement in this Research Study is voluntary. Participants who decide to take part may withdraw from the Research Study at any point. There will be no penalty for withdrawing before all stages of the Research Study are complete.

V. Advice as to arrangements to be made to protect confidentiality of data, including that confidentiality of information provided is subject to legal limitations

Every effort is made to ensure the confidentiality of the participant. Participant names will not be recorded, as all participants will be assigned a code. Where used, recorded survey data will be downloaded to a password-controlled computer, typed survey results are held within password-controlled documents. Participant biographical details and or mention of other persons will be omitted in the final report. Confidentiality of information provided is subject to legal limitations.

VI. Participant Signature:

I have read and understood the information in this form. My questions and concerns have been answered by the researcher, and I have a copy of this consent form. Therefore, I consent to take part in this research project

Participants Signature: _____

Name in Block Capitals: _____

Witness: _____

Date: _____