

Consumer perceptions towards digital payments in Chhota Udaipur District: With Reference to Generation Z

DUBABIYA GURPRIT KAUR¹, DR AMIN VOHRA²

¹Research Scholar, Faculty of Commerce, Master's student, Parul University, Vadodara, Gujarat.

²Assistant Professor, Faculty of Commerce, Parul University, Vadodara, Gujarat.

Abstract-

Purpose: This research examines how Generation Z in the rural area of Chhota Udaipur, Gujarat, perceives and adopts digital payment methods. The objective is to identify the primary elements that affect their use of mobile wallets, internet banking, and various other digital payment solutions.

Design/methodology/approach: A structured survey was implemented with a representative sample of Generation Z consumers located in Chhota Udaipur. The research assessed their perspectives and behaviors concerning digital payments, focusing on factors like convenience, trust, security, and familiarity with technology. Socio-economic aspects such as income, education level, and exposure to digital technology were also examined, in addition to the influence of government initiatives and participation from local merchants.

Findings: The findings reveal that Generation Z in Chhota Udaipur is broadly receptive to the idea of utilizing digital payment systems. Nonetheless, obstacles such as concerns over security, inadequate infrastructure, and low digital literacy impede the widespread adoption of these technologies. The research points to an increasing awareness of digital finance but emphasizes the necessity for focused efforts to enhance usage rates.

Originality/Value: This study adds to the scarce literature regarding the adoption of digital payments in rural India, particularly within the younger, technology-oriented demographic. It offers practical recommendations for policymakers, financial institutions, and local enterprises to create inclusive strategies aimed at fostering digital financial literacy and improving infrastructure in less developed regions.

Keywords: Digital Payments, Generation Z, Rural India, Chhota Udaipur, Mobile Wallets, Financial Inclusion, Digital Literacy, FinTech Adoption

I. INTRODUCTION

Smartphone, with its manifold tasking ability and

portability has become the way of life (Falke et al., 2007), providing convenience, independence and flexibility (Sarwar & Soomro., 2013), mobility, quick access (Leung & Wei, 2000), and ubiquity (Karnouskos, 2004), to the users enhancing productivity in all spheres of their life. Technology has revolutionized the value of smartphone in people's life by performing day to day activities like booking tickets, studying, socializing, gaming, entertainment, shopping, banking finances, bill payments (Aydin & Burnaz, 2016), person-to-person transfer, account transfer, mobile marketing and other kinds of payments (Oliveira et al., 2016). This multifunctionality of smartphone has revolutionized the retail industry (Shanker et al. 2010) as consumers are willing to shop through their smartphone (Cliquet et al., 2014). A survey conducted by Economic Times in 2019 indicates that Indians dedicate one-third of their active hours to browsing the internet on their smartphones. Indian smartphone market is growing exponentially as a result of one of the largest youth population in the world (Wani & Ali, 2015). This potential of smartphone combined with high speed internet facility has revamped the market scenario (Mallat, 2007; CII, 2016; Shaw, 2018) driving the marketers of all class to focus on providing all kinds of goods and services through mobile. Nowadays, there's an application available for just about anything you can imagine.. This concurrence of internet with mobile communication, the two fastest growing industries of this era has led to the creation of an emerging market for mobile commerce (Islam et al., 2011) and mobile app has become efficacious (Karnouskos, 2004) thus every businessman, big or small today are developing mobile based solutions (Singh & Islam, 2016). The ever increasing number of mobile phone users, as well as the fast paced evolution of mobile technologies has resulted in online shopping and online banking (Shin et al, 2014; Satinder & Niharika, 2015), creating space for mobile payment systems in the e-commerce industry (Au &

Kauffman, 2008; Kumar et al., 2012; Wasiq et al., 2016). As any m-commerce activity needs an efficient payment settlement through mobile phone (Phonthanukitithaworn et al., 2016), therefore mobile payment is gaining popularity globally in the area of m-commerce (Carr, 2007). With two-thirds of its population residing in rural areas and 25% of the population being illiterate, financial inclusion in India presents significant challenges. Despite government initiatives like the JAM Trinity (Jan Dhan, AADHAR & Mobile), which resulted in the remarkable opening of 25.68 crore bank accounts under the JDY scheme, around 190 million adults still remain unbanked, lacking access to financial services in India. There is low penetration of banks in rural areas as it has only 6.2 branches per 100,000 people in India, whereas it is 14.2 branches per 100,000 in urban area (Grant Thornton, 2020). M-payment is viewed as branchless banking (Ivatury & Mas, 2008). Establishing physical bank branches in rural regions can be expensive for banks, as the financial returns from serving lower socio-economic groups are often minimal. A 2018 report by Quartz India reveals that India has the highest percentage of inactive bank accounts globally, with 48% of accounts having no transactions over a year. However, the same report indicates that 66% of these inactive account holders possess a mobile phone, which can serve as an effective channel for banking services. By leveraging mobile technology appropriately, it is possible to achieve greater financial inclusion. Kenya's M-pesa launched by Safaricom is a well known example where technology played a great role in enhancing financial inclusion (Arun and Kamath, 2015) and today about 90% of youth has M-Pesa account in Kenya. Digital financial inclusion will act as boon for economic boost (Ozili, 2017). Mobile payment being a next level e-payment solution (Mallat, 2007; Carr, 2007, Islam et al., 2011) has revolutionized financial services (Ouma et al., 2017). Mobile payment being easily and cheaply (Cracknell, 2004) reaching out to the financially deprived can act as a bridge between the financially deprived population and financial services (Resendiz, 2017) in a developing country (like India) where people owning mobile phone supersedes the bank account holders (Porteous, 2006), to access financial services such as money transfer (DBT), making deposit, making payments for services and utilities, withdrawing money. Mobile payment is visioned to have a bright future (Au & Kauffman, 2008; Bezhovski, 2016), as it is considered a killer app by many (Hu et al., 2008;

Ondrus et al, 2009). Many authors found that mobile payment provides definite value to consumers and merchants (Lai & Chuah, 2010). Mobile payment through its freedom from cash (Karnouskus & Fokus, 2004), convenience and ubiquity (Chen & Nath, 2008; Mallat, 2007; Liebana Cabanilas et al., 2017), is gaining global popularity (Chen & Nath, 2008). The awareness about abilities of mobile payment services in providing economic benefits to the society at much lower than cash and card based solutions, is wide spreading (Arvidsson, 2014) making m-payment as a convenient life style (Teng et al., 2018). The ability of implementing services to merchant and consumer at the same time has made mobile payment more convenient (Tartiana et al., 2016). Mobile payment is not mere mobilization of e-payment (Karnouskus & Fokus, 2004) it also plays a significant role in the growth of m-commerce (jmk2), as it is heavily dependent on the acceptance of mobile payment by consumers (Yang et al., 2015). Mobile payment provides consumer with all time financial access (Mallat, 2006) through which people can pay for anything for e.g. transportation tickets or car parking (Begonha et al., 2002), electronic billing, digital content such as ring tones, logos, news, music, or games (Dahlberg et al., 2007), checking bank balances (Tiwari et al., 2007), shopping, services, fund transfer, investment and much more (Kim et al., 2010; Singh et al., 2017). Merchant is benefitted with acceptance of m payment as it increases transaction speed and open new possibilities for better implementation of business strategies through m-commerce (Liébana Cabanillas et al., 2016). Despite much advantage of mobile payment for both consumer and merchant (Dahlberg et al., 2015), adoption rate is yet unsatisfactory (Mallat, 2006; Pousttchi et al., 2009), thus widespread adoption of mobile payments is yet to occur (Zhou, 2014).

1.1.1 Brief History of Currency and Payment Methods
Figure 1.1 History of evolution of means of payment
(Source: Luna, 2017) Barter (9000 BC) Credit card (1946 AD) Mobile payment (1998 AD) Sea shell (1200 BC) Cheque Digital currency (2008 AD) Coin (770 BC) Paper currency (800 AD) The concept of money arose with the dawn of human civilization. The exchange of goods between two people essentially served as a trade medium. The definition of money has evolved over time, transitioning from livestock, shells, coins, and paper notes to cryptocurrency today. The barter system functioned as the foundation of goods exchange, emerging around 9000 BC. In this method, individuals could

trade items without a standardized system; for instance, one might trade an axe for a goat. Over time, certain items were recognized as a common basis for buying goods. These items were typically valuable natural resources, such as shells and specific types of stones, which varied from one region to another. Around 700 BC, the advent of metallurgy led kingdoms to declare precious metals like gold and silver as money. Over time, these kingdoms began to transition to less expensive metals, such as copper and various alloys like bronze. Coins crafted from these materials were significantly cheaper to produce and were assigned a value that was stamped on them. The Chinese transformed the monetary system with the invention of paper in around 700 A.D. Soon, paper designated with value and specific information was recognized as currency. It was far more convenient to carry than coins and much simpler to produce than the intricate metallurgical processes required for coin production. Paper notes gained popularity worldwide, a practice that continues to this day. In 1762 AD, a British banker introduced another paper-based cheque system. These cheques, issued by a bank, were distributed to consumers, and with a valid number and signature, they could be cashed. The introduction of credit cards by a Brooklyn bank in 1946 marked the beginning of plastic money. This form of payment transformed how transactions were conducted, leading to wallets becoming cashless and a growing preference among the public for the convenience of not carrying cash. In 1997, Coca Cola unveiled a mobile payment system that allowed vending machines to accept payments via SMS sent from any mobile device. Over time, mobile wallets emerged as software applications designed for making payments on mobile phones. Numerous banks and various third-party companies have introduced mobile wallets. Today, mobile wallets have advanced with the development of various NFC and UPI technologies. In recent years, cryptocurrencies have also gained recognition as a form of money.

II. LITERATURE REVIEW:

(: Dahlberg, 2015) Mobile payment (m-payment) is a significant innovation in the realm of mobile technology and has increasingly become a topic of global research. With a growing number of m-payment solutions emerging across different regions, various platforms offer both local and international services. The market is flooded with options for both

consumers and merchants, such as peer-to-peer (P2P) services including N26's Moneybeam, Elopay, Kesh, PayPal, Cringle, and Hallo Freunde in Germany, PayM in the UK, and Taxpayment in the US. Globally, mobile payment systems offer a variety of functions, including mobile wallets, ticketing, and additional value-added services.

(Kapoor, 2022) Several m-payment systems are widely used in Asia, including UMPay, Alipay, G-cash, Oxicash SMS Pay, and KakaoTalk. Europe hosts services such as Paybox, TagPay, and PosteMobile, while in Africa, platforms like M-Pesa, Airtel Money, and Orange Money dominate. In the Americas, Obopay, Boku, and Eficash are common. Popular global m-payment platforms include Apple Pay, Google Pay, Samsung Pay, and PayPal. In India, widely used platforms include PayTm, BHIM, MobiKwik, and FreeCharge. PayTm has the largest user base in the country, and BHIM, as a government initiative, has played a pivotal role in promoting digital payments.

(Mbogo, 2010) However, the success of m-payments varies significantly across regions. For instance, M-Pesa has seen remarkable success in Kenya but failed to achieve the same impact in countries like South Africa, Ghana, and India. Similarly, platforms like Z-Pesa in Tanzania did not succeed. Some developed countries like Singapore, Japan, and South Korea have adopted m-payments enthusiastically, whereas in parts of Europe and North America, adoption has been relatively slow due to the availability of existing efficient alternatives.

(Doyle, 2013) Mobile payments have found greater success in unbanked or underbanked markets, where they help fill gaps caused by insufficient financial infrastructure. This has been particularly true in developing countries where traditional banking is not widespread. However, research shows that despite growing global interest, many consumers remain less inclined to use mobile payment systems compared to other mobile services such as advertising, social media, and digital coupons.

(Gupta, 2020) The academic focus on mobile payments has grown steadily, with publication numbers rising notably between 2007 and 2016. According to Gupta et al. (2017), India ranked third globally in mobile payment research output, after China and the USA. This indicates a sustained

scholarly interest in understanding the technological, economic, and social dimensions of m-payment systems.

(Kurnia, 2012) Numerous studies have been conducted on consumer adoption of mobile payment technology. Kurnia and Ali (2012) studied B2B e-commerce in Indonesia and Bahrain, identifying a lack of government support as a barrier. In India, Thakur and Srivastava (2012) found perceived usefulness, ease of use, and social influence to be significant adoption factors, while credibility risks acted as deterrents. Similarly, Makame et al. (2014) added trust and national policy initiatives to the TAM framework in Tanzania, showing that infrastructure and government support are critical for adoption.

(Shaw, 2016) Additional studies across regions have identified various influential factors. Shaw & Sergueeva (2016) in Canada applied the UTAUT2 model and found that value, convenience, and enjoyment significantly impact m-commerce adoption. Dash et al. (2014) linked compatibility and trialability to positive mobile banking attitudes in India. Other models, like UTAUT+PCR and TCT, incorporated perceived risk, self-efficacy, and channel preference to explain user behaviour more comprehensively.

Country-specific studies have further enriched this field. For example, Schierz et al. (2010) in Germany used an extended TAM to identify compatibility and individual mobility as the strongest drivers of mobile payment acceptance. Petrova & Mehra (2010) in New Zealand integrated TAM with the IPO model and emphasized the role of service features and demographics in shaping consumer attitudes. These varied international findings demonstrate that consumer adoption of m-payments is a multi-faceted issue influenced by technological, social, regulatory, and demographic factors.

III. RESEARCH METHODOLOGY

(Kothari, 2014) This chapter describes the research methods utilized to explore the factors that affect the adoption of mobile payment systems by consumers

and merchants in Ranchi and Kolkata. The investigation is shaped by specific research questions and objectives that aid in the development of hypotheses to guide the study. Considering the increasing significance of digital financial technologies in urban areas of India, gaining insights into the local dynamics of mobile payment adoption in these two diverse cities reveals important information about consumer and merchant behaviour in different socio-economic contexts.

A descriptive research design has been selected as it enables a thorough examination of existing trends, attitudes, and behaviours without altering any variables. This design is well-suited for capturing the authentic usage patterns of mobile payments in Ranchi and Kolkata, offering a realistic depiction of how users interact with these systems. Data collection incorporates both primary and secondary sources

The sampling method is purposive to ensure representation across diverse demographics, income brackets, and types of businesses, permitting a comprehensive understanding of trends in adoption. The sample is evenly distributed between the two cities to support a comparative analysis. The data is examined using statistical methods such as percentage analysis, chi-square tests, and correlation analysis to test the hypotheses and investigate relationships among variables. This thorough analysis aids in identifying the primary factors that affect mobile payment adoption in both urban locations.

While recognizing limitations like sample size and potential bias from respondents, the methodology is still considered robust and dependable for deriving significant conclusions. Highlighting the necessity of a well-structured research design, as indicated by Kothari and Garg (2014), this approach integrates appropriate data collection and analysis methods with a clear rationale, ensuring that the study's results contribute meaningful insights into mobile payment adoption within the Indian context. This methodology thus forms the basis for effectively achieving the research objectives.

IV. DATA ANALYSE AND INTERPRETATION

Table 1: Age-wise Distribution of Respondents

Age Group	Frequency (n = 100)	Percentage (%)
18–25 years	35	35%
26–35 years	30	30%
36–45 years	20	20%
46 years & above	15	15%
Total	100	100%

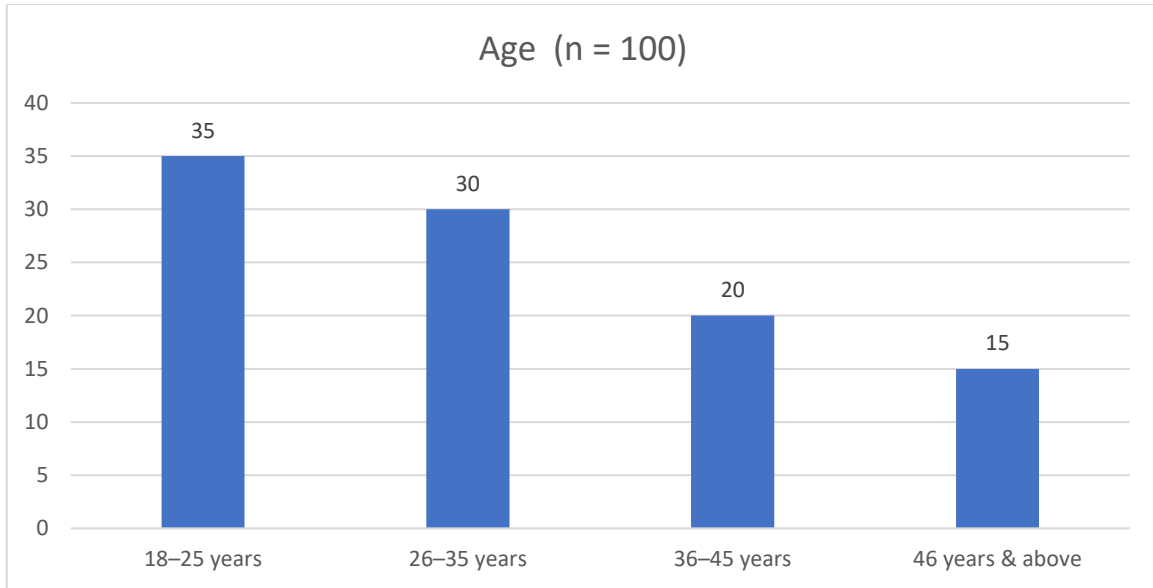
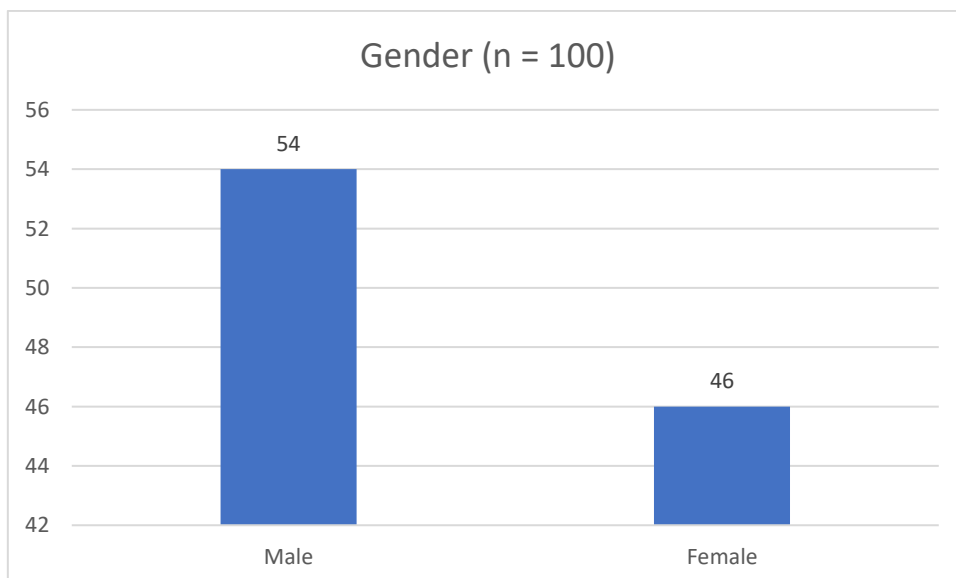


Table 2: Gender-wise Distribution of Respondents

Gender	Frequency (n = 100)	Percentage (%)
Male	54	54%
Female	46	46%
Total	100	100%

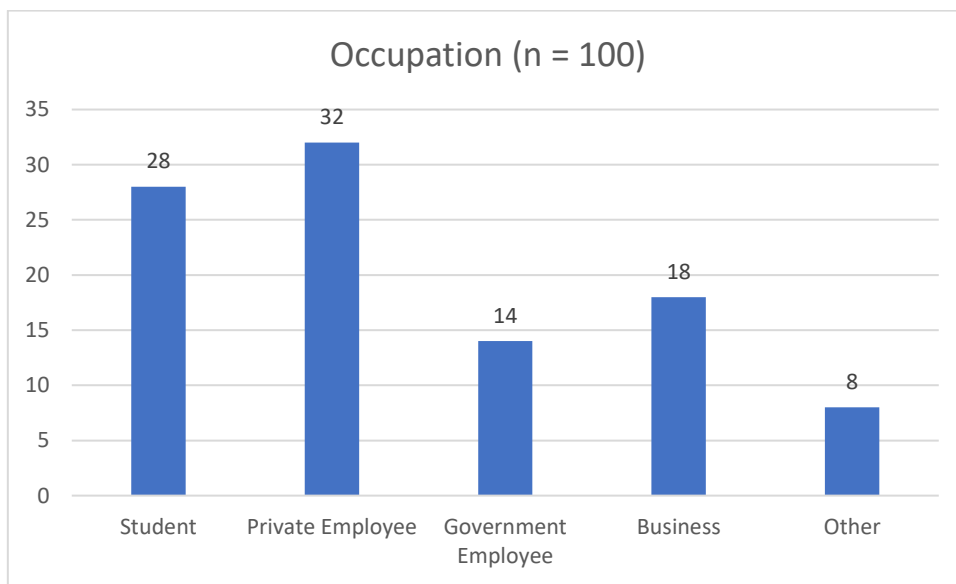


Interpretation:

The sample consists of slightly more male respondents (54%) compared to females (46%). This suggests a relatively balanced participation across genders, indicating that both males and females are active users of e-payment methods.

Table 3: Occupation-wise Distribution of Respondents

Occupation	Frequency (n = 100)	Percentage (%)
Student	28	28%
Private Employee	32	32%
Government Employee	14	14%
Business	18	18%
Other	8	8%
Total	100	100%

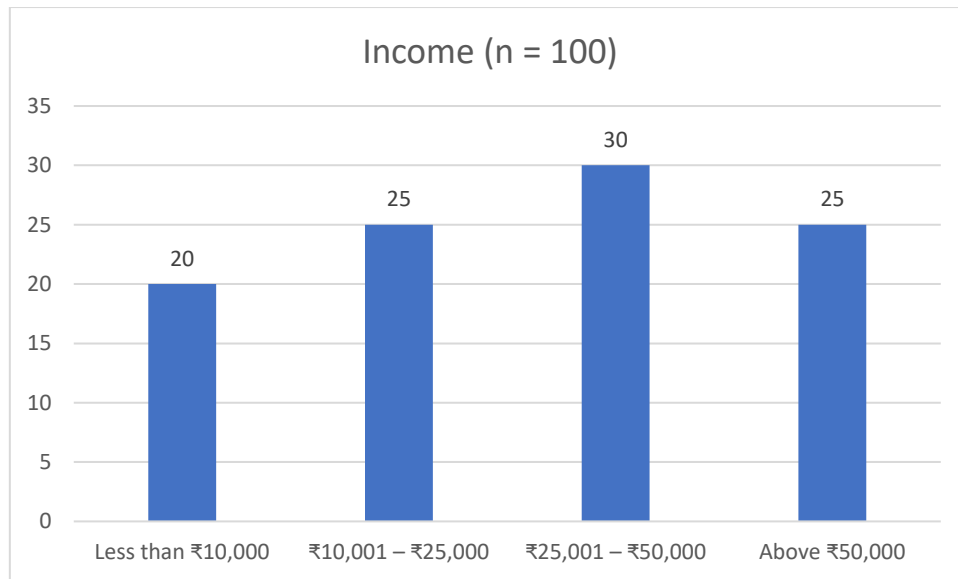


Interpretation:

A significant portion of the respondents are private employees (32%) and students (28%), which shows that working individuals and younger people actively use e-payment systems. Entrepreneurs and government employees also show moderate usage, while "Other" occupations account for a small portion.

Table 4: Monthly Income-wise Distribution of Respondents

Monthly Income (₹)	Frequency (n = 100)	Percentage (%)
Less than ₹10,000	20	20%
₹10,001 – ₹25,000	25	25%
₹25,001 – ₹50,000	30	30%
Above ₹50,000	25	25%
Total	100	100%



Interpretation:

The highest number of respondents fall in the income bracket of ₹25,001 – ₹50,000 (30%), showing a strong participation from the middle-income group. People from both lower and higher income groups are also using e-payments, reflecting widespread acceptance across income levels.

V. MAJOR FINDINGS

The analysis of the demographic profile of respondents revealed that the majority belonged to the younger age groups, particularly those between 18 to 35 years of age. This indicates that the sample largely consisted of youth and young adults. The middle-aged and senior age groups were represented to a lesser extent.

In terms of gender, the sample included both male and female participants in nearly equal proportions. Male respondents were slightly more in number than female respondents, but the difference was not substantial, suggesting a fairly balanced gender representation in the study.

With regard to occupational status, the highest proportion of respondents were private sector employees, followed by students. Government employees and business owners were also included in the sample, along with a small proportion of individuals in other occupational categories. This mix provided insights from a diverse professional background, predominantly from the working class and academic communities.

The income levels of the respondents varied across four categories. The largest group reported earning a moderate monthly income, followed by respondents in the lower-middle income group. There was also notable participation from individuals in both the lower-income and higher-income brackets. This distribution allowed for an inclusive understanding of customer perception across different economic levels.

Overall, the frequency analysis illustrated that the study captured a demographically diverse set of participants, ensuring that insights could be drawn from multiple perspectives related to age, gender, profession, and income.

VI. CONCLUSION

The analysis of demographic data and statistical findings in this study provides a comprehensive understanding of consumer perceptions regarding mobile payment systems. The frequency analysis revealed a young, predominantly working-age sample, with a near-equal gender distribution, though with a slight male majority. The occupational distribution was diverse, with private sector employees and students making up the largest proportion, followed by government employees and business owners. This demographic diversity ensured a broad representation across various professional and income backgrounds.

Notably, gender did not appear to influence awareness levels, indicating that, in the context of this study, mobile payment systems are equally

accessible and perceived by both male and female consumers

VII. RECOMMENDATIONS

1. Targeting Younger Demographics: Given the higher awareness levels among younger individuals, mobile payment providers should focus their marketing and outreach efforts towards this age group. Tailored campaigns emphasizing convenience, security, and the modernity of mobile payments can further enhance adoption.
2. Increasing Awareness Among Older Age Groups: As older respondents showed comparatively lower awareness, there is an opportunity for providers to educate this segment. Educational initiatives, possibly through partnerships with institutions or government bodies, could help bridge the knowledge gap and increase usage in these groups.
3. Focusing on Occupational Groups: The findings suggest that private sector employees and students are more aware of mobile payment systems. For organizations and businesses in other sectors with lower levels of awareness, targeted training programs or incentivized trials could foster broader adoption.
4. Income-based Segmentation: Since awareness is positively correlated with income, mobile payment platforms should consider offering tailored packages or benefits that appeal to lower-income groups. Special incentives, reduced transaction fees, or targeted promotions could encourage adoption among this demographic.
5. Gender-Neutral Marketing Strategies: Given the lack of a significant difference in awareness based on gender, mobile payment companies should focus on inclusive marketing strategies that do not favor one gender over the other, ensuring equal accessibility for all consumers.

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