

**Navigating Digital Transactions: An Analysis of Gen Z's
Perceptions and Intentions
Towards Mobile Wallet Usage in Surat District**

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Abstract:

The research paper explores the perceptions and intentions of Generation Z in Surat District toward the usage of mobile wallets (M-wallets) and their purchasing behavior on e-commerce portals. In the context of a rapidly digitizing economy, M-wallets have emerged as a critical component of online transactions, particularly for younger, tech-savvy consumers. The study collected responses from 444 Gen Z individuals, covering both rural and urban areas of Surat, through a structured questionnaire administered via Google Forms. The data was analyzed using SPSS, focusing on key demographic factors such as age, gender, educational qualification, occupation, area of residence, and smartphone ownership. The results reveal that smartphone ownership and educational qualification are the most significant factors influencing M-wallet adoption and e-commerce purchasing behavior. While the area of residence (urban vs. rural) does not significantly impact e-commerce usage, older respondents within Gen Z and those with higher education levels were found to be more likely to engage in e-commerce transactions. Gender and occupation did not show significant influence on online purchasing behavior. The study highlights the critical role of mobile technology in driving e-commerce adoption among Gen Z and provides valuable insights for businesses and policymakers seeking to enhance digital transaction penetration in the region. Recommendations include developing mobile-centric strategies, improving digital literacy, and focusing on targeted marketing efforts to further boost M-wallet and E-commerce engagement.

Introduction:

The rapid advancement of digital technologies has revolutionized how consumers engage with goods and services, leading to significant changes in the global economy. In India, the growth of e-commerce has been accompanied by the rise of mobile wallets (M-wallets), which enable users to conduct secure, cashless transactions through their smartphones. With the increasing penetration of mobile devices and internet connectivity, M-wallets have become a critical tool for digital payments, especially among younger generations. This shift is particularly notable in Generation Z, individuals born between 1997 and 2012, who are digital natives and more inclined to adopt new technologies.

Generation Z represents a key demographic for the growth of digital payments and e-commerce in India. Their familiarity with smartphones, comfort with online shopping, and demand for convenience make them prime users of M-wallets. However, despite their technological fluency, several factors may still influence their perceptions and intentions toward adopting mobile wallets, including educational background, occupation, and area of residence. Understanding these factors is crucial for businesses and policymakers aiming to increase the

adoption of digital payment systems and e-commerce platforms, particularly in regions like Surat District, which encompasses both urban and rural populations.

This study aims to investigate Generation Z's perceptions and intentions toward M-wallet usage in Surat District, focusing on the demographic, technological, and socio-economic factors that influence their purchasing behavior on e-commerce platforms. By analyzing data collected from 444 respondents, this research seeks to provide insights into how smartphone ownership, educational qualifications, and other key variables affect the adoption of mobile wallets and engagement in e-commerce. The findings will offer valuable guidance for stakeholders looking to enhance digital payment penetration and promote the growth of e-commerce in the region.

This paper is structured as follows: after the introduction, a review of the literature is presented to explore the existing research on M-wallet adoption and digital payments. The methodology section outlines the research design, data collection, and analysis procedures used in the study. The results section provides an in-depth analysis of the data, followed by a discussion of the key findings. The paper concludes with recommendations for practice and suggestions for future research in the field of e-commerce and digital payments.

Review of Literature:

Earlier studies suggest that m-commerce is an extension of e-commerce. **Ngai and Gunasekaran (2007)** argue that m-commerce shares similarities with e-commerce, with the primary difference being that transactions occur within a mobile environment. However, this definition has been challenged by other scholars (**Feng et al., 2006; Wei et al., 2009**), who believe it is too limiting to describe m-commerce merely as an offshoot of e-commerce. They argue that m-commerce's reliance on mobile devices and network connectivity sets it apart. Furthermore, m-commerce offers unique business opportunities due to its advantages in accessibility and mobility compared to traditional e-commerce (**Wei et al., 2009**).

Tiwari, Garg, and Singhal (2019) conducted a study on consumer adoption of digital wallets, with a specific focus on the NCR region. The study utilized both primary and secondary data, employing methods such as ANOVA, regression, and correlation for data analysis. Respondents were randomly selected from the NCR region, with data collected through a questionnaire. The study used convenience sampling with a sample size of 200 participants. The research proposed an innovative digital wallet model featuring a biometric lock, exploring its adoption among NCR consumers. Through a questionnaire survey, the study examined the product's usefulness and the respondents' willingness to adopt the innovation. Data was analysed using SPSS software, and the results showed that most respondents would be inclined to adopt the product if costs related to repairs and maintenance were reduced.

Padiya and Bantwa (2021) conducted a study focused on the adoption of e-wallets as a payment method in Ahmedabad City, particularly in the post-demonetization period. The research aimed to identify the factors that encourage or discourage the use of e-wallets and also examined related issues such as the impact of demonetization on online payment preferences, the influence of demographic factors on e-wallet usage, and challenges faced by users. The study was based on 318 valid responses collected through a structured questionnaire. Data analysis involved percentages, cross-tabulation, and statistical methods like ANOVA. The findings revealed that e-wallet users place significant importance on attributes such as security, privacy concerns, and transaction fees. The most common problems reported by respondents included long transaction processing times, security breaches, and delayed payments. The government's demonetization initiative played a crucial role in raising awareness, increasing usage, and boosting acceptance of online payment systems.

Tripathi and Dave (2022) concluded that the pandemic significantly affected the importance of e-commerce shopping trends among consumers. During this period, electronic shopping facilitated cashless transactions, offering a convenient and cost-effective option for customers to shop from any location. E-shopping was favoured for its time-saving benefits, convenience, access to a wide range of products, easy price comparisons, and the absence of crowds, making it an ideal solution during the pandemic.

Chawla and Kumar (2022) emphasized the critical role of consumer protection in the e-commerce sector, which also applies to m-commerce. Their research involved an in-depth analysis of two recently enacted laws: the Consumer Protection Act, 2019, and the Consumer Protection (E-commerce) Rules, 2020. The study also incorporated a literature review and analysed responses from 290 online consumers to address the research questions and objectives. Key findings highlighted the importance of secure and reliable systems for the success of e-business firms, with cash on delivery emerging as the preferred payment method for online shoppers. Additionally, website transparency and effective customer service were found to enhance consumer trust. The newly introduced regulations are considered robust enough to protect online consumers' rights and further support the growth of India's e-commerce sector. Alongside factors like security, privacy, warranties, customer service, and website information, consumer protection laws play a pivotal role in shaping customer trust in e-commerce.

Parmar and Ghelani (2022) conducted a study to examine the key factors shaping consumers' perceptions of m-commerce in Gujarat, particularly focusing on the roles of social influence, trust, and perceived cost. The study surveyed 434 participants, with a valid response rate of

78.91%. The proposed research model was tested using simultaneous multiple regression analysis. The results revealed that perceived usefulness, social influence, and trust have a significant positive impact on consumers' intentions to use m-commerce, while perceived cost has a significant negative effect on their perception. Additionally, perceived ease of use showed a minimal impact on consumer attitudes toward m-commerce in Gujarat. The generalizability of the findings is limited as the study focuses solely on Gujarat and other potentially relevant variables were not included in the model.

Tripathi (2020) explored consumer attitudes toward the use of mobile payment applications, focusing on the factors that influence adoption as well as the barriers encountered during usage. The study sampled 100 respondents from Gujarat, using a convenience sampling method. The findings suggest that a respondent's profession is not a significant factor in decision-making related to mobile payments, and elderly individuals show little interest in adopting these applications. In contrast, those with undergraduate and postgraduate education are more inclined to use mobile payment apps. The study identified several factors that positively influence consumer attitudes, including time savings, cashback and discounts, convenience, detailed transaction records, reduced theft risk, spending tracking, and contributing to a cashless economy. However, barriers such as transaction fees, lack of knowledge, limited acceptance of digital payments, transparency issues, habitual behaviour, and trust concerns were also highlighted. This research is expected to help develop effective strategies to increase mobile payment adoption in India and strengthen consumer relationships with these services.

Rani & Suresh (2019) The main objective of this study is to identify consumer preferences regarding the application of AI across different areas of e-commerce. The research was conducted with 100 respondents, utilizing factor analysis and regression analysis as sampling tools, and simple random sampling as the method. The study's key findings reveal no significant relationship between usage and reward factors, though a significant relationship exists with the technical factors. The most influential AI applications in e-commerce were found to be real-time product targeting, voice-powered search, and virtual personal shoppers. The research highlights various aspects of consumer perception towards e-commerce, such as personalized shopping experiences, real-time product targeting, visual search, AI-based hiring processes, voice-powered search, assortment intelligence tools, conversational commerce, customer service, virtual personal shoppers, virtual assistants, AI-driven fake review detection, AI-based sales processes, and customer-centric advertising. Data was collected via a questionnaire focusing on the performance and application of AI in e-commerce, with 100 respondents selected from various parts of Chennai. The findings suggest that AI technology

has significant potential for growth across various fields, contributing to new innovations in data science and machine learning.

Research Methodology:

The study adopts a descriptive research design aimed at identifying and understanding the factors influencing the perceptions and behavioral intentions of Gen Z in Surat District regarding M-wallet usage. The design is suited to capturing a snapshot of attitudes, behaviors, and preferences associated with M-wallet usage across urban and rural populations in the district. This research is quantitative in nature, utilizing a structured survey to gather data on the demographic, psychological, and situational factors that influence M-wallet usage among Generation Z.

The target population for this study includes Generation Z individuals, typically aged between 18 and 25, residing in the Surat District of Gujarat, India. This cohort is particularly significant for the study due to their high level of digital engagement and propensity to adopt new technologies such as mobile wallets. A convenience sampling technique was employed for data collection. The survey was disseminated digitally, allowing for easy access to respondents from both rural and urban regions of Surat District.

A total of 450 respondents participated in the survey. After data cleaning and validation, 444 responses were retained for the final analysis. The sample included respondents from both rural and urban areas, ensuring a balanced representation of Gen Z individuals across different socio-economic backgrounds in the district. Data was collected through a structured questionnaire administered via Google Forms. The questionnaire was designed to assess respondents' perceptions, attitudes, and behavioral intentions towards M-wallet usage.

The collected data was analyzed using SPSS (Statistical Package for the Social Sciences), a widely used software for statistical analysis in social sciences research. Invalid or duplicate entries were eliminated to ensure the integrity of the dataset.

Result and Discussion:

Crosstab

Count		Do you purchase from E-commerce Portal (online)?		Total
		No	Yes	
Age	Less than 20 Years	130	270	400
	21 - 25 Years	4	32	36
	More than 25 Years	0	8	8
Total		134	310	444

The crosstabulation table shows a higher tendency for e-commerce purchases among the older segment of Gen Z (21-25 years and above), compared to the younger group (less than 20 years), which shows a relatively lower adoption rate.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	10.692 ^a	2	.005
Likelihood Ratio	14.216	2	.001
Linear-by-Linear Association	10.458	1	.001
N of Valid Cases	444		

a. 1 cells (16.7%) have expected count less than 5. The minimum expected count is 2.41.

The Chi-Square test also reports that 1 cell (16.7%) has an expected count of less than 5, with the minimum expected count being 2.41. This indicates a potential violation of one of the assumptions of the Chi-Square test (that no more than 20% of cells should have expected counts less than 5). However, since only one cell violates this condition, the overall results can still be considered valid, though some caution should be taken when interpreting them. The results clearly demonstrate that age plays a significant role in determining e-commerce purchasing behavior among Gen Z in Surat District. Younger respondents (less than 20 years) are less likely to engage in e-commerce transactions compared to their older counterparts. This insight suggests that targeted strategies may be required to increase e-commerce adoption among younger Gen Z individuals, potentially focusing on factors such as trust, ease of use, or promotional.

Crosstab

Count		Do you purchase from E-commerce Portal (online)?		Total
		No	Yes	
Gender	Male	74	164	238
	Female	60	146	206
Total		134	310	444

The crosstabulation indicate that both male and female respondents have a relatively similar behavior when it comes to purchasing from e-commerce portals, with a slightly higher percentage of female respondents making online purchases compared to male respondents.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.203 ^a	1	.653		
Continuity Correction ^b	.120	1	.729		
Likelihood Ratio	.203	1	.652		
Fisher's Exact Test				.679	.365
Linear-by-Linear Association	.202	1	.653		
N of Valid Cases	444				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 62.17.

b. Computed only for a 2x2 table

The analysis shows that there is no significant difference between male and female respondents in terms of their likelihood to purchase from e-commerce portals. Both genders demonstrate a similar pattern of behavior regarding online purchases. Therefore, gender is not a determining factor for e-commerce adoption in this sample of Gen Z respondents from Surat District. Businesses and marketers targeting Gen Z for e-commerce do not need to focus on gender-specific strategies for increasing e-commerce usage, as the behavior across male and female respondents is similar. Instead, efforts can be directed toward other factors that may influence purchasing behavior, such as convenience, trust, or promotional offers.

Crosstab

Count		Do you purchase from E-commerce Portal (online)?		Total
		No	Yes	
Education Qualification	High School	44	82	126
	Diploma	2	0	2
	Under Gradugate	86	194	280
	Post Gradugate	2	32	34
	Doctroral	0	2	2
Total		134	310	444

The crosstabulation table suggest that respondents with higher education qualifications (Postgraduate and Doctoral) are more likely to engage in e-commerce purchases compared to those with lower educational levels (High School and Undergraduate).

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.399 ^a	4	.003
Likelihood Ratio	20.146	4	.000
Linear-by-Linear Association	5.563	1	.018
N of Valid Cases	444		

a. 4 cells (40.0%) have expected count less than 5. The minimum expected count is .60.

The analysis demonstrates that educational qualification significantly influences e-commerce purchasing behavior among Gen Z respondents in Surat District. Higher educational attainment, particularly postgraduate and doctoral levels, is strongly associated with a higher likelihood of purchasing from e-commerce portals. In contrast, respondents with a high school education or lower are less likely to engage in e-commerce transactions. This suggests that as individuals gain more education, they may become more familiar with or comfortable using digital platforms for purchasing, possibly due to greater digital literacy or exposure to technology. For e-commerce companies, targeting promotional efforts and educational content toward less-educated segments may help increase online shopping adoption in these groups.

Crosstab

Count		Do you purchase from E-commerce Portal (online)?		Total
		No	Yes	
Occupation	Students	132	296	428
	Employed	0	10	10
	Business	2	4	6
Total		134	310	444

The crosstabulation shows that majority of respondents are students, and the data shows that a high proportion of them use e-commerce platforms. The small number of employed and business respondents also demonstrates a high likelihood of purchasing from e-commerce portals, particularly for the employed group.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.440 ^a	2	.109
Likelihood Ratio	7.301	2	.026
Linear-by-Linear Association	1.002	1	.317
N of Valid Cases	444		

a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is 1.81.

The results indicate that occupation is not a significant factor in determining e-commerce purchasing behavior among Gen Z respondents in Surat District. While a high proportion of students and employed respondents report purchasing from e-commerce portals, the Chi-Square test does not establish a statistically significant relationship between occupation and online shopping. The small number of employed and business respondents limits the ability to draw robust conclusions regarding these groups. Therefore, while students appear to be the dominant group engaging in e-commerce, further investigation with a larger and more diverse sample of employed and business respondents could provide more conclusive insights. For now, occupation does not appear to be a key determinant of e-commerce adoption in this dataset.

Crosstab

Count		Do you purchase from E-commerce Portal (online)?		Total
		No	Yes	
Area of Residence	Rural	62	118	180
	Urban	72	192	264
Total		134	310	444

The crosstabulation shows that urban respondents are more likely to purchase from e-commerce portals compared to rural respondents, although a substantial number of rural respondents also engage in online shopping.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.612 ^a	1	.106		
Continuity Correction ^b	2.283	1	.131		
Likelihood Ratio	2.595	1	.107		
Fisher's Exact Test				.115	.066
Linear-by-Linear Association	2.607	1	.106		
N of Valid Cases	444				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 54.32.

b. Computed only for a 2x2 table

The analysis suggests that area of residence (rural vs. urban) does not significantly influence e-commerce purchasing behavior among Gen Z respondents in Surat District. While urban respondents are slightly more likely to purchase from e-commerce portals than rural respondents, the difference is not statistically significant. This result indicates that the adoption of e-commerce platforms is relatively balanced between rural and urban areas, which could imply that the digital divide between these regions is narrowing. Businesses can focus on both rural and urban populations without needing to significantly adjust their strategies based on location alone. However, further research could explore other factors influencing online purchasing behavior, such as access to the internet, digital literacy, or delivery infrastructure in rural areas.

Crosstab

Count		Do you purchase from E-commerce Portal (online)?		Total
		No	Yes	
Do you have a smartphone?	No	16	6	22
	Yes	118	304	422
Total		134	310	444

The crosstabulation table shows that owning a smartphone is strongly associated with the likelihood of purchasing from e-commerce portals, as the majority of those who purchase from e-commerce platforms own smartphones.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	19.885 ^a	1	.000		
Continuity Correction ^b	17.818	1	.000		
Likelihood Ratio	17.864	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	19.841	1	.000		
N of Valid Cases	444				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.64.

b. Computed only for a 2x2 table

The analysis shows a strong and statistically significant relationship between smartphone ownership and e-commerce purchasing behavior among Gen Z respondents in Surat District. Respondents who own smartphones are much more likely to engage in e-commerce transactions than those without smartphones. This result highlights the critical role of mobile technology in facilitating online shopping. E-commerce platforms should continue to focus on mobile-friendly services and applications to further enhance purchasing convenience. For the small segment of non-smartphone users, companies might explore alternative means of engagement or incentivize smartphone ownership to increase e-commerce adoption.

Conclusion:

This research paper aimed to analyze Generation Z's perceptions and intentions toward mobile wallet (M-wallet) usage within the context of Surat District, focusing on the critical factors influencing their engagement with e-commerce portals. The study utilized a survey approach, collecting data from 444 valid respondents across both rural and urban areas of Surat, and employed SPSS for statistical analysis. Key factors such as age, gender, educational qualification, occupation, area of residence, smartphone ownership, and e-commerce purchasing behavior were investigated to draw insights into how these variables affect the adoption of M-wallets and overall e-commerce usage. Gender and occupation were not found to significantly influence e-commerce purchasing behavior, smartphone ownership and educational qualification emerged as critical factors in determining the adoption of M-wallets and e-commerce platforms.

Given the strong relationship between smartphone ownership and e-commerce engagement, businesses should continue to develop mobile-friendly platforms and applications to cater to this tech-savvy demographic. Initiatives aimed at enhancing digital literacy, especially among younger or less-educated individuals, could help increase the adoption of M-wallets and e-

commerce platforms. E-commerce companies should focus on targeted marketing strategies that emphasize security, convenience, and user-friendliness, especially for younger respondents and those with lower digital literacy.

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